



ቅድስት ማርያም ዩኒቨርሲቲ
St. Mary's University

School of Graduate Studies

**PERCEPTION ON FACTORS AFFECTING REAL ESTATE
PRICE IN ADDIS ABABA CITY ADMINISTRATION**

BY

EYOB ASSEFA TADESSE (ID: SGS/0164/2007B)

DECEMBER, 2017

**PERCEPTION ON FACTORS AFFECTING REAL ESTATE
PRICE IN ADDIS ABABA CITY ADMINISTRATION**

BY

EYOB ASSEFA TADESSE (ID: SGS/0164/2007B)

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF BUSINESS IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION.**

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

Advisor

ST. MARY'S UNIVERSITY

Signature

JANUARY, 2017

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Solomon Markos (PhD), all sources of materials used for the thesis have been duly acknowledged, and I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Name

**ST MARY'S UNIVERSITY,
ADDIS ABABA**

Signature

JANUARY 2017

**ST. MARY'S UNIVERSITY
SCHOOL OF BUSINESS**

**PERCEPTION ON FACTORS AFFECTING REAL ESTATE PRICE IN ADDIS ABABA CITY
ADMINISTRATION**

BY

EYOB ASSEFA TADESSE (ID: SGS/0164/2007B)

APPROVED BY BOARD OF EXAMINERS

Dean, Graduate Studies

Signature & Date

Advisor

Signature & Date

External Examiner

Signature & Date

Internal Examiner

Signature & Date

ACKNOWLEDGMENTS

I would like to start by thanking the Almighty God, for giving me strength and helping me in my daily activity.

I would like to thank all of the teachers I got to learn from during the MBA courses special thanks goes to my advisor Dr. Solomon Markos who guided and advised me during the different phases of the preparation of this thesis. I would also like to thank, the different people who were willing to make time from their busy schedule in order to fill the questionnaire prepared for this study.

Least but not last, I would like to thank my family and friends who helped me out on my research work. Special thanks goes to my wife Beza Berhanu and my friend Habtamu Kifle for their immense unconditional support.

Eyob Assefa

CONTENTS

Acknowledgement	i
List of tables.....	v
List of figures.....	vi
List of acronyms and abbreviations	vii
Abstract.....	viii
CHAPTER ONE: Introduction	1
1.1 Background of the study	1
1.2 Statement of the problem	2
1.3 Objective of the study	3
1.3.1 General Objective	3
1.3.2 Specific objective.....	3
1.4 Significance of the study.....	4
1.5 Scope of the study.....	4
1.6 Organization of the research.....	5
CHAPTER TWO: Review of related literature.....	6
2.1 Introduction.....	6
2.2 Real Estate Definition and characteristics.....	6
2.3 Real Estate Cycles	7
2.4 Mechanisms that trigger or amplify the appearance of cycles and bubbles in real estate markets.....	9
2.5 Fundamental of real estate prices.....	10
2.6 Price Movement in Segmented Real Estates Space Markets	10
2.7 Real estate price bubble.....	11
2.8 Factors influencing real estate prices	12
2.8.1 Direct factors influencing real estate prices.....	12
2.8.2 Indirect factors influencing real estate prices	14
2.9 Overview of studies on the Addis Ababa real estate market	16
2.10 Conceptual framework.....	18
CHAPTER THREE: Research methodology	20
3.1 Research design.....	20

3.2 Research approach.....	20
3.3 Sample and Sampling Techniques.....	20
3.5 Procedures of data collection	21
3.5.1 Designing and validating data collection instruments	21
3.5.2 Administering the survey	21
3.6 Methods of data analysis	21
3.7 Ethical Considerations	21
CHAPTER FOUR: Results and discussions.....	23
4.1 General profile of considered real estate companies	23
4.2 Demographic characteristics of the respondents	24
4.2.1 Gender and Age.....	24
4.2.2 Qualification	25
4.3 Perception of respondents on current real estate price in Addis Ababa	25
4.4 Direct factors affecting the real estate price.....	27
4.4.1 Physical characteristics of property	28
4.4.2 Neighborhood	29
4.4.3 Location	29
4.4.4 Accessibility of property	30
4.4.5 Security	31
4.4.6 Descriptive statistics for direct factors influencing the real estate price.....	32
4.5 Indirect factors affecting the real estate price.....	33
4.5.1 Country economic performance	33
4.5.2 Population growth.....	34
4.5.3 Taxation	35
4.5.4 Employment.....	35
4.5.5 Availability of technology.....	36
4.5.6 Descriptive statistics of the in direct factors influencing real estate price	37
CHAPTER FIVE: Conclusion and recommendations	39
REFERENCES.....	ix
ANNEX 1	xiv

LIST OF TABLES

Table 4.1 Profile of considered real estate companies.....	23
Table 4.2 Gender of respondents	24
Table 4.3 Qualification of respondents	25
Table 4.4 Physical characteristics of property influence on real estate price	28
Table 4.5 Neighborhood influence on real estate price	29
Table 4.6 Location influence on real estate price	29
Table 4.7 Accessibility to property influence on real estate price	30
Table 4.8 Security influence on real estate price	31
Table 4.9 Descriptive statistics for direct factors influencing the real estate price	32
Table 4.10 Country economic performance influence on real estate price	33
Table 4.11 Population influence on real estate price	34
Table 4.12 Taxation influence on real estate price	35
Table 4.13 Employment influence on real estate price	35
Table 4.14 Availability of technology influence on real estate price	36
Table 4.15 Descriptive statistics of the indirect factors influencing real estate price	37

LIST OF FIGURES

Figure 2.1 Market cycle quadrants	8
Figure 2.2 Study conceptual framework	19
Figure 4.1 Age of respondents	24
Figure 4.2 Respondents perception on the current real estate price	26
Figure 4.3 Real estate price affordability	27

LIST OF ACRONYMS AND ABBREVIATIONS

CPI-Consumer Price Index

EIA- Ethiopian Investment Agency

GDP-Gross Domestic Product

SPSS- Statistical Package for Social Sciences

ABSTRACT

The Ethiopian real estate has been booming for much of this decade. In many areas, especially within the capital city, Addis Ababa, prices doubled and even tripled in a span of a few years. The main objective of this study is to investigate the direct and indirect factors that cause the price escalation of real estates in Addis Ababa. The study used survey data obtained through structured questionnaires. Sixty-two (62) questionnaires were distributed to selected real estate managerial personnel. Descriptive statistics was applied in order to analyze the data. Results show that among the managerial personnel of real estates in Addis Ababa it is perceived that real estate price has increased and that the affordability of these houses is mostly limited to the higher class. On one hand, location, physical characteristics of property and the accessibility of properties were identified as the major direct factors influencing real estate price. On the other hand, taxation, economic performance of the country and the non-availability of adequate construction technology were stated as the major indirect factors influencing real estate price. Based on the findings, the author recommends that it's important to monitor the real estate price increase, especially since the current real estate price seems to only target the higher class. Improving infrastructure developments that will improve real estate properties accessibility to transport and other important facilities, revision of the country taxation laws and regulation of the real estate sector and measures that could diminish inflation rate and bank loans interest rate might increase the real estate price affordability, especially to the middle and lower class. Finally, reducing construction costs by improving the number and the level of qualified personnel, by facilitating access to the latest construction technologies and through adopting alternation construction techniques which can reduce construction costs and limit the construction time periods will highly contribute to reducing the final real estate price.

Keywords: *Real estates, price escalation, affordability, Addis Ababa, direct factors, indirect factors*

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The real estate market is a very important part of an economy and fluctuations in house prices can have a strong impact on real economic activity. Because housing is typically the most important component of household wealth, changes in house prices affect household wealth and expenditure. It is a rather interesting field of research both at macro and micro levels. On the macro level the real estate market is closely connected with financial and real sector. Moreover, the trend of real estate cycle coincides with that of economic development (Mavrodiy, 2005). Real estate prices can be considered to be a leading indicator of general business cycle (Wang, 2003; Grissom and De Lisle, 1999). In recent years, in Ethiopia capital city accumulated demand for residential housing on the one hand and the low supply of residential land on the other have pushed prices beyond the reach of the majority of the residents (Abraham, 2007). Therefore, the investigation of the real estate market in the Ethiopian context is a significant part of the country's economic situation analysis and it is important to identify the determinants of house prices dynamics.

On micro level real estate market can be viewed in the framework of consumer behavior analysis. Moreover, in the opinion of Mavrodiy (2005), real estate represents a store of value and a generator of income. Therefore, real estate purchases constitute a considerable part of consumption expenditures. Studies have shown that a number of significant factors influence property value in different real estate markets around the world. These factors which include location and different qualitative attributes influence real estate stakeholders' decisions and the economy. This being said for this study we will only be concentrating on the macro factors.

Addis Ababa city has seen an increase of population due to the natural increase and/or migration effect among other reasons leading to a housing problem. This being the case, the government has recently put particular focus on urbanization and housing development. Building condominium houses at reasonable cost for low and medium income earners is one of the adopted strategy. The industrial policy of the country also boosts the construction industry, creating employment opportunities and banking business.

In the mid-1990s few pioneering companies began to conceive large scale developments and offered buyers the opportunity to buy into them with promises of low priced but good quality housing. Ayat became the first major, successful residential real estate developer of the era, planting the seeds for the impending desire by many to invest in the lucrative business. It then became clear in very short order that Ayat and some of the other earlier entrants had tapped into an enormous reservoir of pent up demand for housing in Addis resulting in first a trickle and then a flood of new entrants into the sector. The recent aggressive move towards public and private housing investments has multi-dimensional impacts on the economy, like opening the market to foreign investors (Chinese investors) and private investors, particularly from the Diaspora. In 2015, Real estate investment projects owned by foreigners are worth of over Birr 4.8 billion while investment by domestic investors amounted to Birr 5.4 billion. The Addis Ababa city investment agency has given several licenses to real estate developers since its establishment. For the period of 2000-2015, the total number of real estate developers licensed by EIA (Ethiopian Investment Agency) reached 1667 with a total capital of 31.9 billion (Eshete and Teshome, 2015). The agency also reported that the sector has been growing at an average of 12.3% in the past five years (Shelemew, 2016).

The private real estate sector, even if it has contributed a lot in solving the housing problem of the city it has its own setbacks. Real estate companies have no involvements in the real estate space market; all provide residential properties in the Asset market. Most have an exclusive focus on the supply of luxurious if not very expensive housing in which this segment is very thin for which majority of the suppliers relied on. Almost all middle income levels do not fit to this segment and that is why it remained a market for the Diaspora (Aqubamicheal, 2009).

Housing affordability in this market (Real estate Asset market) is very low and can be rated as “severely unaffordable” thus households choose to rent instead of buying. Only small portion of the dwellers of Addis Ababa mainly those in the high income levels and Diasporas remained the buyers in the real estate asset market. Because of this the market is very thin and illiquid (Ibid).

1.2 Statement of the problem

Modern definitions of the term Real estate focus on the fact that a real estate refers to the land and fixtures together, as distinguished from real property, referring to ownership rights of the land itself. A contemporary definition of real estate is provided by investors: Real estate is a term that encompasses

land along with anything permanently affixed to the land, such as buildings, specifically property that is stationary or fixed in location. Thomsett and Kahr (2007) defined real estate as land and all permanent improvements on it, including building.

As in many countries of the world, the Ethiopian real estate has been booming for much of this decade. In many areas, especially within the capital city, Addis Ababa, prices doubled and even tripled in a span of a few years, and the concern of many of the residents is the lack of adequate affordable housing. There is a substantial imbalance between the demand for and supply of housing units in Addis Ababa. Accumulated demand for residential housing on the one hand and the low supply of residential land on the other have pushed prices beyond the reach of the majority of the residents in the country including Addis Ababa.

This study intends to investigate the factors that cause the price escalation of real estates in Addis Ababa. The affordability of the current real estate prices by the Addis Ababa city residents will be investigated. On the other side the major factors behind the price escalation of real estate residential houses will be identified. The study will address the following basic research questions:

- ⇒ Is the current house price affordable?
- ⇒ What macro-factors (indirect factors) are influencing the price escalation?
- ⇒ What are the firm-level (direct factors) affecting price escalation of real estate?
- ⇒ What is the different stakeholder's perception with regard to the factors behind the real estate price escalation?

1.3 Objective of the study

1.3.1 General Objective

The general objective of this study is to assess and evaluate the main factors behind escalation of price in the real estate market in Addis Ababa, in order to provide valuable input to concerned stakeholders.

1.3.2 Specific objective

- ➔ To identify if the current real estate prices are affordable
- ➔ To investigate the macro-factors (indirect factors) that affect price escalation of real estates
- ➔ To examine the firm-level or (direct factors) that affect price escalation
- ➔ To assess the different stakeholders' perception with regard to the reason behind the price escalation?

→To provide necessary recommendation based on the results of the study.

1.4 Significance of the study

This study conducted for the purpose of academic reasons as part of partial fulfillment of the requirement for the Degree of Master of Business Administration focuses on the escalating price escalation of real estate in Ethiopia. Overcoming the non-affordability of real estate price by Addis Ababa city residents is a major challenge that requires enormous efforts. Hence, the overall findings of the study are expected to provide relevant information and knowledge to real estate developers, policy makers, researchers and other stakeholders in identifying the factors behind the real estate price escalation. The study will bring the different stakeholders to question the bases of the current price increase and to think about future price evolutions and their impacts. Also policy makers can use recommendations derived from the study finding to develop policies that can counter back non-affordability of housing. Recent research papers on the real estate market are very few, therefore the present study can also serve as a springboard for other studies and researchers who would like to study the matter further more.

1.5 Scope of the study

Price escalation of housing is observed all over the county but this study focused on the capital city where the house affordability gap is very high. There are many real estate developers in Addis Ababa. As stated by Eshete and Teshome (2015), for the period of 1992-2006 (E.C), the total number of real estate developers licensed by Ethiopian Investment Agency reached 1,667 but few of these registered real estate companies are currently operational in Addis Ababa. The study will target 20 registered real estate agencies who are currently well-established and operating in Addis Ababa.

Though there are many factors behind the price escalation of real estate price the study has tried to focus on the major ones. From the indirect factors, this study will focus on economic performance, population growth, availability of new technology, taxation and employment. With regard to the direct factors physical characteristics of property, neighborhood, property location, accessibility of property and security will be investigated in this study.

1.6 Organization of the research

The study is organized into five chapters.

Chapter one explains back ground information, statement of the problem, objective of the study and significance of the study.

Chapter two would be a brief literature review regarding the research topic. Chapter three explains the research methodology adopted for the study and relevant justifications. It outlines the methodology for carrying out the data collections and how results will be analyzed. Chapter four presents the data analysis. Finally, chapter five presents conclusion and recommendation of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

Real estate is a rather popular area of research. Many studies were conducted in the field of modeling real estate price pattern, analyzing the relationship between real estate market and other economic sectors and estimating return on real estate's assets. The market is closely connected with general economic cycles therefore there is a necessity to analyze the market and to find tools for predicating its development and its price determinants.

In Ethiopia studies on the real estate market are unfortunately few, but as the real estate market is soaring in the past decade especially in the capital city, special attention should be given to researches that evolve around the different aspect of the topic.

This section would deal with a review of relevant literature on the following topics: Real estate cycles, real estate price movements, mechanisms that trigger or amplify the appearance of cycles, bubbles in real estate markets. Furthermore, this section would try to review the different studies that have been done on the emerging real estate sector in Addis Ababa.

2.2 Real Estate Definition and characteristics

The term real estate is used in three fundamental ways. First, its most common use is to identify the tangible assets of land and buildings. Second, it is used to denote the "bundle" of rights associated with the ownership and use of the physical assets. Finally, the term real estate may be used when referring to the industry or business activities related to the acquisition, operation, and disposition of the physical assets (Kalin, 2005).

Characteristics that make real estate unique as compared to other investment alternatives are no fixed maturity, tangibility, its requirement of management, inefficient markets, high transactions costs, low liquidity, underlying tenant quality and variability among tenant. Unlike a bond which has a fixed

maturity date, an equity real estate investment does not normally mature. Real estate is, well, real! 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. Because real estate is tangible, it needs to be managed in a hands-on manner (landscaping, renovation, security and cleaning services etc). Real estate is an inefficient market which means that information asymmetry exists among participants in the market, allowing greater profits to be made by those with special information, expertise or resources. Private market real estate has high purchase costs and sale costs (real-estate-agent-related commissions, lawyers' fees, engineers' fees, substantial brokerage fee. 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 which may cause a lack of liquidity. When assessing an income-producing property, an important consideration is the quality of the underlying tenancy. If the tenants are likely to default on their monthly obligation, the risk of the investment is greater. 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 (Ian Woychuk, 2017).

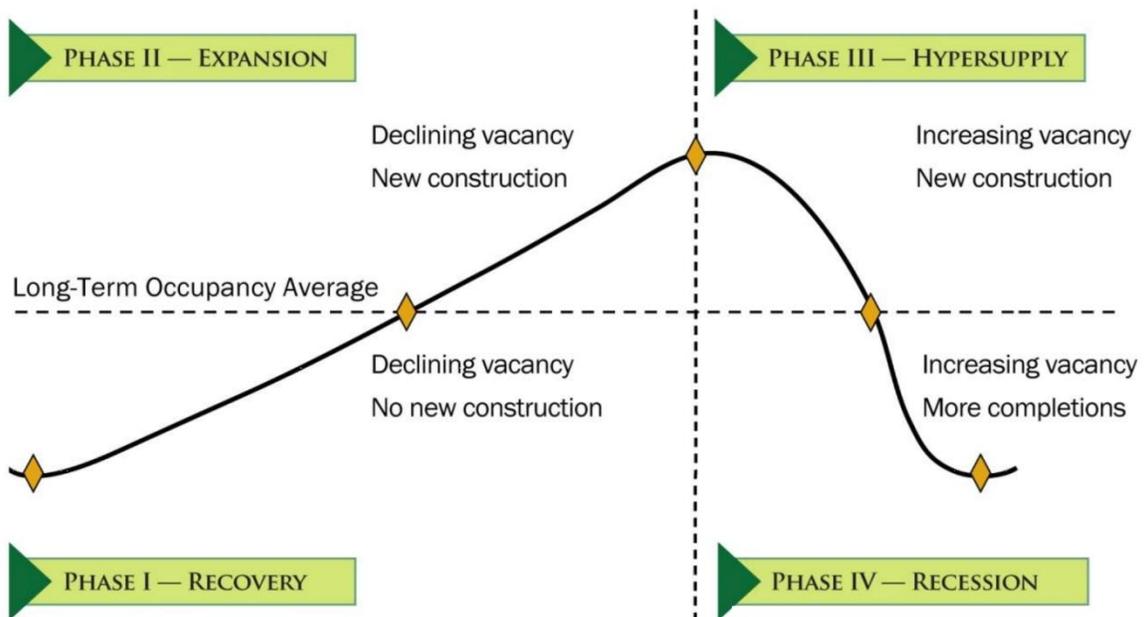
2.3 Real Estate Cycles

The events and conditions influencing real estate value are referred to as the real estate cycle. While many factors affect the cycle, the real estate cycle moves in a fairly predictable sequence over time. (Thomsett and Kahr, 2007). Similar to the broader economy, commercial real estate is a cyclical market. The stages vary in length of time and rapidity of changes in market conditions. There are however four phases to the real estate cycle: (1) Recovery phase (2) Expansion phase (3) Hyper supply phase (4) Recession phase.

The recovery phase is the bottom of the trough. Occupancies are likely at or near their low point with tepid demand for space and minimal leasing velocity. There is usually no new construction underway and rental rate growth is either still negative to flat or, later in the phase, possibly occurring, but at levels that are below the rate of inflation. Identifying the beginning of the recovery phase is difficult as the market still feels like it is in recession. During the expansion phase, the market is on the upswing in terms of growing demand for space. From a macroeconomic perspective, GDP growth is back to normal levels and quarterly job growth is strong. Occupancy rates are improving and rents are on the rise. Rents now approach levels that can justify new construction, and in certain very tight markets, surge ahead at breakneck speeds.

Development activity begins to return during the expansion phase. There also is a high point during the expansion phase – the crest of the wave – where supply and demand is in equilibrium. The equilibrium between supply and demand in the expansion wave often tips over into excess. Oversupply of space can be caused by overbuilding, or a pullback in demand caused by a shift in the economy. Hypersupply is marked by rising vacancies. Rent growth may remain positive, but at declining levels. Supply outweighs demand, which produces higher vacancies. Rent growth during recession is either negative or at levels that are below the rate of inflation. In addition, operators often resort to offering more concessions and rent reductions to entice and retain tenants.

Figure 2.1 Market cycle quadrants



Source: Mueller, 1995

From a macroeconomic perspective, in recent years Ethiopia’s GDP is on the growth. According to IMF (2017) the GDP has increased from 8,608.5 billion \$US in 1997 to 19,417 billion \$US in 2017. With regard to housing, in general, real estate developments in Addis Ababa is encouraging investment, creating employment opportunities for the city residents and bringing potential foreign exchange to the country (Shelemew, 2016). This being said an accumulated demand for residential housing on the one hand and the low supply of residential land on the other have pushed prices beyond the reach of the

majority of the residents in the country including Addis Ababa (Abraham, 2017). Therefore, we can say that the current Ethiopian real estate has not reached its equilibrium and is in its expansion phase.

2.4 Mechanisms that trigger or amplify the appearance of cycles and bubbles in real estate markets

- ⇒ **Fixed supply and the optimistic investor:** When land and in short run also buildings supply is fixed a small (but sufficient enough to clear the market) number of investors willing to pay more than the fundamental price might determine the general market price. These optimistic investors are likely to stay in market as long as prices are rising and financial resources are available. However, eventually supply will start rising, vacancy rates will increase and prices will start falling. Such dynamics are expected to have particular relevance in cases where land is a scarce resource and real estate prices have risen far more than construction costs. (Carey, 1990)
- ⇒ **Construction lags and imperfect information:** When the price of existing real estate rises above the replacement cost, developers will initiate new construction and increase the supply. Since new construction take several years to be completed, the adjustment to equilibrium will be slow. Because of this lag in construction and imperfect foresight about future demand, supply may continue to rise for several years after vacancy rates have started to increase. (Herring and Wachter, 1999)
- ⇒ **Loans collateralized by real estate:** In many countries real estate is one of the few acceptable forms of collateral, which create an extra incentive to build properties, so that a company can borrow more to expand which eventually contribute to overbuilding while creating a possible credit crunch when prices start falling (Kiyotaki and Moore, 1995)
- ⇒ **Moral hazard:** Moral hazard in the form of over-guaranteed and under-regulated financial intermediaries may result in excessive risk-taking, over-investment and over-pricing of assets. Guarantees against losses create an incentive for lenders to fund risky projects as long as there is a (small) chance of high return. (Krugman, 1998)
- ⇒ **Liberalization of markets:** The liberalization of markets and opening to foreigners will increase the number of potential investors in real estate and, through that channel, contribute to a booming

real estate market unless accompanied by a strengthening of supervision and regulation, this can be expected to increase the risk of overinvestment. (Renaud, 1999)

⇒ **Concentration of bank assets:** Rising real estate prices may encourage increased lending to the real estate sector as a bank's own holdings of real estate rise in value and the economic value of the bank's capital increases. (Herring and Wachter, 1999)

2.5 Fundamental of real estate prices

Real estate tends to be heterogeneous, meaning that each property has unique features, age, building design, and especially location combine to give each property distinctive characteristics. Even in residential neighborhoods with very similar houses, the locations differ. Corner lots have different locational features than interior lots; their access to parks and transportation routes may differ, and the traffic patterns within the neighborhood create differences. Real Estate markets are typically characterized by (i) heterogeneity of supply; (ii) absence of a central trading market; (iii) infrequent trades; (iv) high transaction costs; (v) prices that are often determined by bilateral negotiations; (vi) rigid and constrained supply; (vii) financing through borrowing and (viii) the use of real estate as collateral (Hilbers *et al*, 2001)

The price of an existing property should in principle equal to the present-value of expected future cash or service flows that will accrue to the owner. Service flows from housing are called “imputed rents.” The discount rate used in the present-value calculation is comprised of a risk-free yield and a compensation for perceived risk, i.e., a risk premium. Their sum defines the rate of return that an investor expects to receive to justify purchase of the asset. All else equal, a lower risk premium implies a lower expected return and a lower discount rate in the present-value calculation. Future service flows will be discounted less and the fundamental value will rise. (Gelain P. *et al*, 2013)

2.6 Price Movement in Segmented Real Estates Space Markets

In order to understand the price movements in real estate markets, we can use the basic supply and demand model from an introductory economics course, with only a few modifications. The demand

function for real estate space looks very much like the demand function for most other goods and services. The demand curve is downward sloping, suggesting that the quantity, demanded falls as prices increase (Charles and Marcus, 1987).

The supply function, however, has an unusual shape because real estate space is a long lived item whose quantity cannot be reduced quickly in response to changes in demand. The Supply curve is depicted as vertical at the current quantity of space in the market and approximately horizontal at all higher quantities. The vertical portion reflects the inability of suppliers to adjust the quantity of space in the market quickly. The horizontal portion reflects the notion that long-run marginal cost of developing new space does not vary as space increases. That is, the cost of constructing the next building is not affected by the amount of space already in existence in the market (Ibid).

2.7 Real estate price bubble

Real estate goods consist in two parts: the plot of land and the structures. The supply of land for building is a growing function of land price. The structure supply is inelastic in the short run, elastic in the long run. In a situation of long-term equilibrium and in the absence of bubble, home price equals the present value of the expected services, of rents in the future. ‘Let us assume now a bubble arising in this market, and buyers ready to pay a price higher than the fundamental value. This higher price implies a higher price of structures, then a higher rate of production and finally a larger property stock. This larger expected stock, combined with an unchanged demand for property services, implies the expectations of lower prices for these services and lower prices of rents. Such decreased expected rents reduce the present value of rents. Then the bubble results in an increased price and a decreased fundamental value (Lind H. *et al.* 2009).

When we are not dealing with a stochastic bubble, property price goes on increasing and the fundamental value goes on decreasing. If land supply becomes increasingly inelastic, the property stock growth slows down. The scenario is similar when the bubble is stochastic. When the bubble bursts, the price falls down far below its initial level because of the excessive size of the property stock (Hilber and Vermeulen, 2012).

2.8 Factors influencing real estate prices

Kinyua (2014) and Mavrodiy (2015) identified the factors that influence residential property prices to include the macro factors (indirect factors) and micro factors (direct factors).

2.8.1 Direct factors influencing real estate prices

Several studies have examined the direct factors affecting property pricing. In Gahanna a study examined the factors determining residential property prices in Ghana and came up with four factors namely location, number of bedroom, housing facilities and neighborhood amenities all having significant effect on the price of houses in the region (Owusu-Ansah, 2012). Also, examining the factors that must be taken into account for analytical forecast of future trends in the fluctuation of real estate prices in Slovenia Golobet *et al.* (2012) identified location and construction qualities has significant direct factors. Oloke *et al.*, (2013) conclude that proximity to major road, number and sizes of bedroom, conveniences, motorable access road, drainage, security are the leading factors affecting property values.

Physical characteristics of property

Physical characteristics refer to appearance and quality of an estate in respect to its design, structure itself and layout (Mavrodiy, 2005). Real estate developments are characterized by long physical life which calls for better structure, layout and design due to changing technology in the real estate sector (Iman, 2006). Properties of better design, good layout and structure will affect higher demand as people will be willing to purchase them hence increasing competition to such properties. This leads to high prices on such properties and vice versa to the poorly laid and designed structure.

Neighborhood

Neighborhood of a property also has a direct effect on the price of a residential property. Hilbers et al. (2001) explains that people living around an area will affect comfort level a person can derive when residing in that area. Friendly neighbors are a sign of a healthy and friendly community and this increases demand for property while unfriendly neighbors are a sign of unfriendly community thus decreases the demand of residential property in those areas (Seth, 2012). Places of friendly neighborhood will attract more competition which in turn leads to increased prices of residential property.

Property location

Properties physical location refers to the geographical area where the subject property is situated (Pagliara *et al.*, 2010). This affects the prices of residential houses because different areas will attract different prices (Mavrodiy, 2005). Properties located at places such as towns will attract higher prices while similar properties located in rural areas will attract lower prices.

Accessibility of property and availability of amenities

The level of convenience and accessibility of a place or particular land is determined by how far the property is located from the place of work, shopping centers or any other place that one needs to visit regularly (Kinyua, 2014). The main determinant of how convenient and accessible a place is, are traffic, road network and road conditions (Mankiwn and Gregory, 1998). Most people prefer to reside in highly convenient and accessible areas, the demand of the residential houses in these areas increases. The increased level of demand of residential houses then contributes to increase in prices of residential houses. Poorly accessible and inconvenient areas attract few peoples and therefore, low demand on residential property thus low prices. Proximity to facilities and amenities is fourth factor that influence residential property prices. Properties that are situated near facilities such as hospitals, gym, supermarket, education centers and other fundamental facilities attract higher demand to the residents because most people like residing at places where it is convenient access these facilities (Duenwald, 2000). This high demand contributes to competition on the subject property thus leading to a higher price. These amenities help meet people's basic needs (Nance, 2003). For instance, if one has kids who he or she intends to enroll to a school which is close to home, he or she would acquire a property with a school within a convenient distance. This makes such properties more expensive due to high level of competition.

Security

After physiological needs such as shelter and food, humans require safety in order to advance in life and satisfaction (Maslow, 1943). It applies to any vulnerable and valuable asset, such as a person, dwelling, community, nation or organization. Neighborhood crime is both a societal safety and public health issue; it can directly harm residents through its violent manifestations and indirectly harm residents through

stress and impacts on health (Kneeshaw-Price *et al.*, 2015). A place where signs of vandalism and suspicious locations are noticed within the neighborhood is considered to be unsafe (Marija *et al.*, 2011). Every person prefers residing in safe places hence shying away from residing in unsafe residential areas (Kamau, 2011). This reduces the demand for residential houses in such areas thus affecting the residential values negatively. On other hand, there will be higher demand on the residential houses which are located in safe areas.

2.8.2 Indirect factors influencing real estate prices

The various indirect factors influencing real estate prices have been widely studied in the literature, these factors have varying degree of impact on the real estate market of any country.

Expected growth in income, anticipated real interest rate, taxes, demographic situation, availability of credit resources are emphasized as main determinants of real estate prices. (Hilbers *et al.*, 2001). As outlined in Mavrodiy thesis (2005) the major macro variables termed indirect factors that affect real estate prices include economic growth, population growth, income level and interest rate. Vanichvatana (2007) singles out the following macroeconomic factors: GDP, employment, loan rate, foreign exchange rate, stock price indexes and geo-factors (population, age). Furthermore, investment fund, availability of new technology, inflation rate and supporting monetary policy are designated as indirect factors that influence real estate price escalation in Kinyua (2014) study.

Economic Performance (GDP, Inflation, Interest rate)

A key in direct factor that affects the value of real estate is the overall health of the economy. This is generally measured by economic indicators such as the GDP, employment data, manufacturing activity, inflation, etc. The GDP is the market value of all officially recognized final goods and services produced within a country in a given period of time. GDP per capita is often considered an indicator of a country's standard of living. Under economic theory, GDP per capita exactly equals the Gross Domestic Income per capita. When the GDP is low it means that the people's purchasing power is also low hence the demand for real estate and consequently the house prices will decrease. Conversely, when the GDP increases, the purchasing power also increases hence increasing the demand of Real estate and house prices go up. (Karoki, 2013)

Inflation is often defined as a sustained increase in prices for a broad range of prices (Gallagher, 2011). Inflation rates affect the purchasing power of money. Inflation is measured by the changes in the Consumer price index (CPI) which measures the retail prices of goods and services purchased by households (Liow *et al.*, 2005). It is theoretically expected that the higher the inflation rate the higher the house prices.

When the interest rate is on the rise, the cost of borrowing is also rising and the potential buyers are getting discouraged. As a result, housing demand is falling. On the contrary, when the interest rates are on the decrease, e.g. because of money supply growth, then the user cost of housing is going down and the demand for housing is rising (Panagiotidis and Printzis, 2015).

Monetary policy

In the United States, highly expansionary monetary policy, especially the aggressive policy rate reduction from 6.5% in 2000 to 1% in June 2003 through June 2004, was cited as one of the key reasons leading to the real estate price bubble that burst during the recent global financial crisis [Taylor (2007), Jarocinski and Smets (2008), and Bernanke (2010)]. In a study of house prices and monetary policy in eighteen major industrial countries, Ahearne *et al.* (2005) showed that house price booms are typically preceded by a period of easing monetary policy, and that central banks around the world have expressed different opinions on the use of monetary policy to control house prices during the crisis. Empirical results consistently demonstrate that expansionary monetary policy tends to accelerate the subsequent home price growth, while restrictive monetary policy tends to decelerate the subsequent home price growth (Xu and Chen, 2011).

Availability of new technology

Connor and Liang (2000) argue that, over the long term, the impact of technological development is overwhelmingly positive on real estate investments. As technological advances it enhances productivity and wealth, demand for all types of real estate also increase (Lieser and Groh, 2011). Kinyua (2014) study recommend the promotion of modern technology in provision of residential properties which can contribute to reduced property prices. Muli (2012) study affirms that using alternative technologies can be challenging but if done correctly it has the potential to be an essential piece of bringing down the cost of construction.

Population growth

Mankiw and Weil (1989) were the first to study the relationship between demographics and the housing market. An increase in the number of newborns (baby booms) has a small short-term effect on the housing market but it increases demand for new houses twenty years later. A decrease in the number of births or an increase in the average age of population has a strong influence on demand and on the housing prices.

Employment

Li (2014) study shows that the change in working age population has a significant effect on the change of real estate prices. A 1% increase with the people between the ages of “15-64” causes a 2.707% increase in the housing prices. The same study affirmed that along with economic factors the working age population tends to be the main demanders of real estate, and the main influencers of the shifts in real estate prices.

Taxation

There are two main reasons why government taxes residential property. Firstly, it taxes it because of the high market value of the housing stock and secondly because of the immobility and durability of housing that makes it difficult to avoid taxation (Leung, 2004).

Other studies (Skinner, 1996; Gervais, 2002; Feldstein, 1982; Bellettini and Taddei, 5 2009; Van den Noord, 2003; Berkovec and Fullerton, 1992) argue that the preferential tax treatment lead to social welfare loss and the crowding-out phenomenon for investments in other sectors. In the long-term this course will end up with higher housing stock and increased price levels (Turnovsky and Okuyama, 1994; Order Van, 2007).

2.9 Overview of studies on the Addis Ababa real estate market

The government’s investment on infrastructure development, such as power, telecom, roads, etc encourages the intensification of business activities. The presence of unexploited market and potential investment areas, entry barriers for foreign banks, booming in real-estate development, availability of advanced technology, stimulating competition, changing Diaspora’s culture to invest home and the fact

that Addis Ababa is a diplomatic center and capital city of Africa are all front opportunities for booming in housing investment and pushing up its demand. (Eshete and Teshome, 2015)

In general, real estate developments in Addis Ababa is encouraging investment, creating employment opportunities for the city residents and bringing potential foreign exchange to the country. Nonetheless, they are not reducing the housing shortage (deficit) rather they are just increasing the total housing stock in the city. (Shelemew, 2016)

Housing affordability in this market (Real estate Asset market) is very low that can be rated as “severely unaffordable” market (using the international standard of Demographia International) and households choose to rent instead of buying. Only small portion of the dwellers of Addis Ababa mainly those in the high income levels and Diasporas remained the buyers in the real estate asset market. Because of this the market is very thin (& illiquid). (Aquabamichael, 2009)

Although real estate developers made an agreement with the lease department to provide houses to middle and low income group; they have marginalized these income groups due to the high cost of the houses they provide. Almost all buyers are from high class of the society and members of the diaspora. Even though they put their own reasons like the issuance of undeveloped land, the VAT and surtaxes and the recurrent fluctuation of cost of construction materials, the reality is the system in general is not pro-poor. (Shelemew, 2016)

Prices of the residential properties are highly increasing for a combination of different reasons. One factor is the inflation factor. There is high concentration of (active & potential) investors in Addis Ababa that pushes the prices of lease up highly. The escalating prices of housing construction materials affects not only for new orders to come, but for the existing contracts (because all have adjustable contract prices based on justifiable raw material costs) which affects the ability to pay remaining installment payments and creates delays or defaults on settlement in which the builders relied up on, for their finance. (Aquabamichael, 2009)

The ongoing construction materials price escalation like cement, and metal sheet, shortage of domestic cement supply, uprising of general inflation and deteriorating purchasing power of money, limited foreign currency position, marginalizing mass salaried and lower-middle income group from getting

bank loans affect affordability, monthly loan repayment, building finishing time, and occupancy rate (Eshete and Teshome, 2015).

Housing project finance is one of the long term finances which banks regard the sector being risky due to two common reasons. The first one is due to the fact that banks regard (after scrutiny of facts) long term loan approved for housing projects have a tendency of being diverted to finance projects that were not originally intended to. Hence, there is a high risk that the loaned money will be unlikely to be recovered, with interest, as the collateral will get devalued because of the diversion of fund. The second one is that there is always a big gap between the estimated value assessed by the bank and the market value of the collateral. (Girma, 2015)

The real estate brokerage business is not as well developed as in other countries. In the market, there are no sufficient capable real estate brokerage firms. Buyers and sellers rely on agents locally called “Delalas” for buying and selling homes. These are traditional agents with no formal education in real estate but who basically mediate between buyers and sellers. A great deal of negotiation is involved in buying homes. (Aquabamichael, 2009)

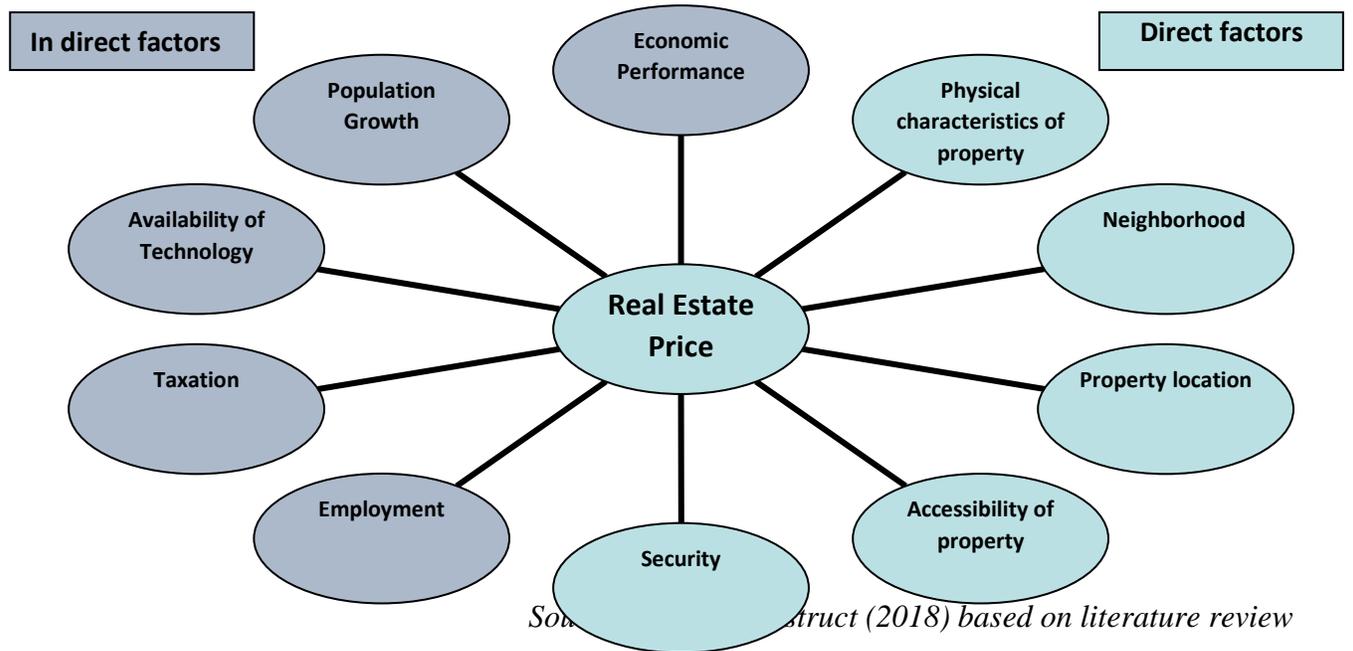
Therefore, based on the review of studies on Addis Ababa real estate development as well as personal observations the different factors behind the price escalation include Undeveloped land, VAT and surtaxes, GDP, Income, Population growth, Escalating Prices of housing construction materials, High concentration of potential investors in Addis Ababa that pushes the prices up, Diaspora oriented supply, Deteriorating purchasing power of money (increasing exchange rates), Limited foreign currency position, Undeveloped brokerage business, Availability of technology.

2.10 Conceptual framework

A conceptual framework also is defined by Miles and Huberman (1994, p.18) as “something that explains either graphically or in narrative form, the main things to be studied the key factors, constructs or variables and the presumed relationships among them”.

The gathered literature in present chapter was reviewed and the most appropriate factors were selected in order to properly answer the stated research questions.

Figure 2.2 Study conceptual framework



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 1990). Among the three categories of research methods namely exploratory, descriptive and explanatory, the descriptive research methodology was chosen because of the nature of the research question. The major purpose of descriptive research is description of the state of affairs as it exists at present (Ibid). In other words, descriptive research tries to paint a picture of a given situation by addressing who, what, when, where and how questions. In the present study, it was believed that the use of this method contributes to identifying the factors affecting the price escalation of real estate in Addis Ababa.

3.2 Research approach

This study used a quantitative approach. A quantitative approach is one in which the investigator primarily uses postpositive claims for developing knowledge (i.e., cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories), employs strategies of inquiry such as experiments and surveys, and collect data on predetermined instruments that yield statistics data (Creswell, 1999). This approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion (Kothari, 1990).

3.3 Sample and Sampling Techniques

There are many real estate developers in Addis Ababa. As per the documents provided by the Ethiopian Investment Agency (EIA) the numbers of registered real estate companies between 1995-2017 in Addis Ababa city is around 730. This being said most of this real estate are oriented in the construction and renting of commercial buildings and only around 40 of these real estates are residential and only 25 of them are currently operational. Therefore, it will be important to employ a purposive sampling method in order to only include the real estate companies with experience and a significant level of operations. A purposive sampling is widely used for the identification and selection of information-rich cases related to the phenomenon of interest. (Palinkas et al, 2015). Hence the study considered 25 registered real estate agencies

who are currently well-established and operating in Addis Ababa. Employing a census survey, for each operator, three respondents were selected i.e., senior manager, assistant manager, marketing manager. Therefore, in total, the questionnaire was distributed to 75 respondents.

3.5 Procedures of data collection

3.5.1 Designing and validating data collection instruments

A questionnaire was used as the survey instrument. The questionnaires consisted of close ended questions properly constructed based on the literature review. In order to ensure the logic and consistency, the questionnaire was tested prior to the survey.

3.5.2 Administering the survey

The survey was mostly a self-administered, the researcher was present during the distribution and filling of the questionnaire. But in some cases since the targeted persons were not present in the office or were very busy, the researcher distributed the questionnaire and came back to collect it afterwards (after a day or two).

3.6 Methods of data analysis

In this study, the collected data was analyzed using a descriptive statistic, principally means and standard deviations that help better understand the perception of respondents about the factors of price escalation were used. The Statistical Package for Social Sciences (SPSS) was employed for the analysis. The results were presented using tables and graphs which facilitate easy interpretation and understanding of the information. Adequate were taken to ensure the validity of the questionnaire.

3.7 Ethical Considerations

Considerations to protect and respect the rights of participants and other parties associated with a certain activity are described as ethics of research (Reynolds, 1982). Therefore, in this study, special attention

was given for ethical issues in reference to the ethical guide lines specified by Cresswell (2003 pp.93-97).

The researcher made sure that respondents received a clear briefing on the purpose of the study, the right to participate voluntarily, the right to ask questions, the right to have access to the copy of the final report of the study, the right to have their privacy respected and finally the right to choose not to respond to some particular questions.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 General profile of considered real estate companies

For data collection purpose, a total of 75 questionnaires were distributed to 25 real estate companies (3 for each companies) but only 21 of these companies were able/willing to participate in the survey. Therefore, 62 questionnaires were returned filled with the information requested from 21 real estate companies (3 participants from 20 companies and 2 from one company). The response rate was 83%.

Table 4.1 Profile of considered real estate companies

	Company Name	Year of establishment	Type of real estate development	Investment Status
1.	Evergrand	2014	Residential	Operational
2.	Metropolitan	2015	Residential	Operational
3.	Muller	2010	Residential	Operational
4.	East Africa		Residential	Operational
5.	Aser	2000	Residential	Operational
6.	Flinston	1991	Residential	Operational
7.	Noah	2006	Residential	Operational
8.	Zenebe Ferew	2005	Residential	Operational
9.	Impact	1999	Residential	Operational
10.	Tracon	2007	Residential	Operational
11.	Huda		Residential	Operational
12.	Gift	2007	Residential	Operational
13.	Yotek	2007	Residential	Operational

14.	Hayat	2004	Residential	Operational
15.	Nassew	2007	Residential	Operational
16.	Sunshine	2006	Residential	Operational
17.	Jukerose	1997	Residential	Operational
18.	Sunset	2008	Residential	Operational
19.	Tesmex		Residential	Operational
20.	Country Club Development	2002	Residential	Operational
21.	Tshehay	2011	Residential	Operational

Source : Ethiopian Investment Agency (EIA)

4.2 Demographic characteristics of the respondents

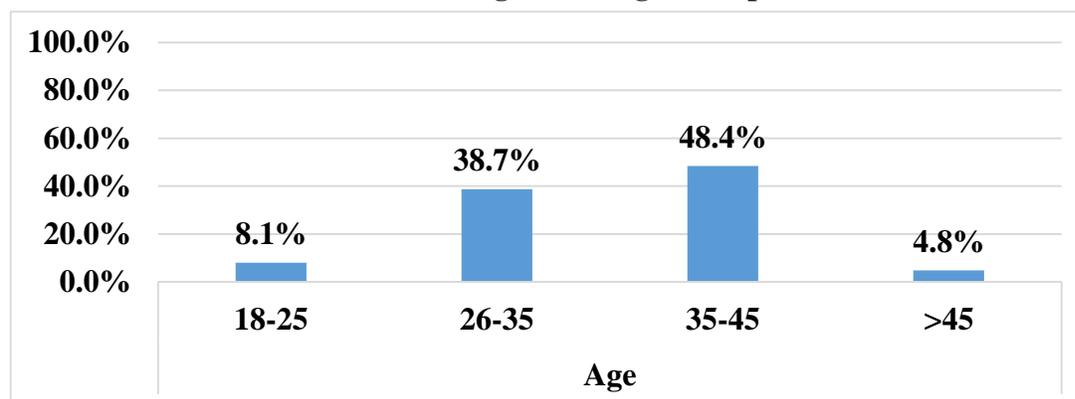
4.2.1 Gender and Age

Table 4.2 Gender of respondents

Gender					
Male		Female		Not specified	
Count	Row N %	Count	Row N %	Count	Row N %
34	54.8%	26	41.9%	2	3.3%

Source: Own Survey (2017)

Figure 4.1 Age of respondents



Source: Own Survey (2017)

In the first section of the questionnaire respondents were asked to specify personal information that will be useful during data analysis. Demographic characteristics such as sex, age, qualification, position and years of experience of the respondents are presented below. Male (55.7%) respondents are slightly greater than the female respondents (42.6%) (Table 4.2). 87.1% of the respondents are aged between 26 and 45 years old (Fig. 4.1). It is to be noted that one of the respondents did not specify her/his gender.

4.2.2 Qualification

With regard to their position within their respective company, 40.4% are managers, 42.4% are assistant managers and 17.3% are marketing managers. 78.9% of the respondents have a bachelor degree and 21.2% have a master degree (Table 4.3).

Table 4.3 Qualification of respondents

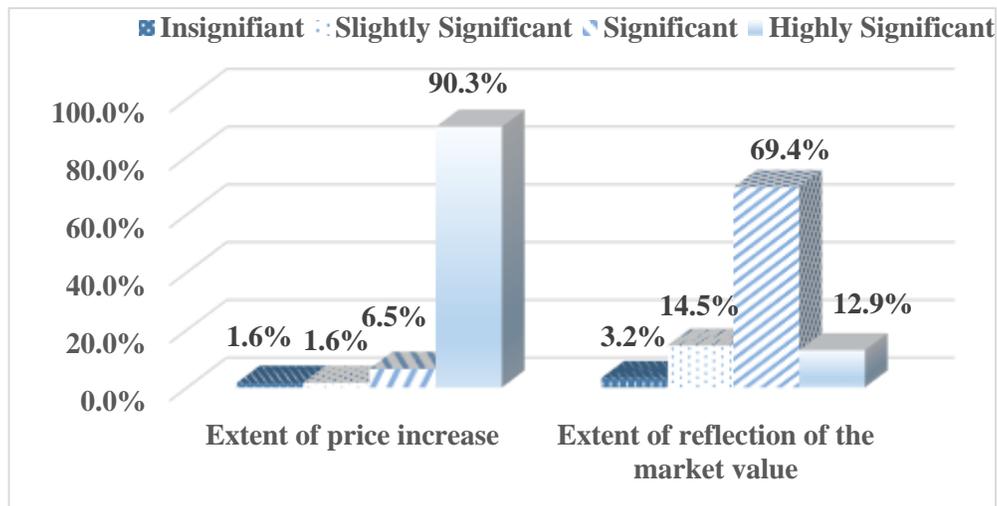
			Qualification							
			Bachelor Degree				Master Degree			
			78.9%				21.2%			
			Experience				Experience			
			<2	2 - 5	6 - 10	> 10	<2	2 - 5	6 - 10	> 10
Position	Manager	40.4%	0.0%	9.6%	15.4%	1.9%	0.0%	0.0%	5.8%	7.7%
	Assistant Manager	42.4%	5.8%	21.2%	15.4%	0.0%	0.0%	0.0%	0.0%	0.0%
	Marketing Manager	17.3%	0.0%	5.8%	3.8%	0.0%	0.0%	0.0%	5.8%	1.9%

Source: Own Survey (2017)

4.3 Perception of respondents on current real estate price in Addis Ababa

In the second section of the questionnaire, respondent's perception on the current real estate price in Addis Ababa has been assessed. For this purpose, 5 questions were developed. Four point Likert scale was used to measure the responses; (1) = Insignificant; (2) = Slightly significant; (3) = Significant and (4) = Very significant.

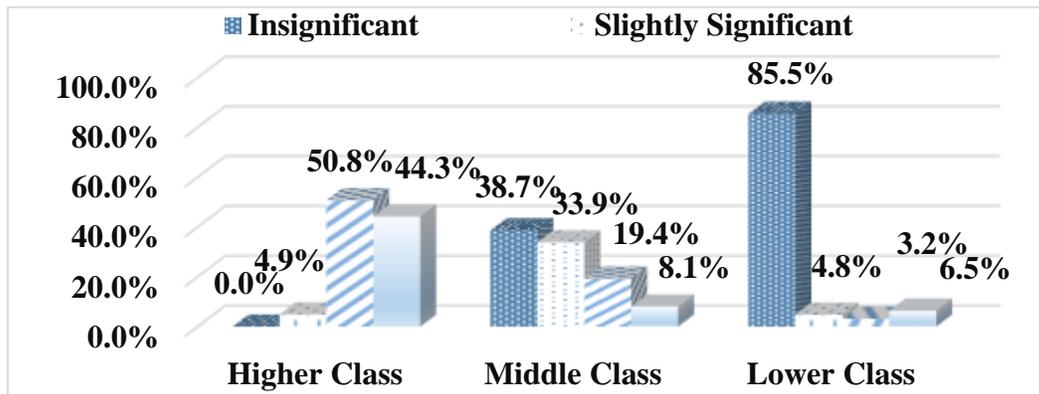
Figure 4.2 Respondents perception on the current real estate price



Source: Own Survey (2017)

90.3% of the respondents found that the increase of real estate price is highly significant. We can therefore say that the respondents commonly agreed that the Addis Ababa city real estate price has highly significantly increase. The majority of the respondents (69.4%) believe that the current real estate price is significantly the true reflection of the market value of the properties. Whereas 14.5% and 4.9% of the respondents find that the current real estate price respectively slightly significantly and insignificantly truly reflects the market value of properties, respectively (Fig. 4.2). This finding is different from the one found in a similar study done in Kenya, Nairobi by Kinyua (2010), where 68% of the respondents stated that the existing prices of residential property does not reflect their market values. It is important that real estate prices reflect the true market value for future marketability. Shelemew (2016) suggest that real estate developments in Addis Ababa are not reducing the housing shortage (deficit) rather they are just increasing the total housing stock in the city.

Figure 4.3 Real estate price affordability



Source: Own Survey (2017)

With regard to the current affordability of real estates by the population of the different economic class (higher, middle and lower class), 52.5% and 45% of the respondents found that the real estate price affordability for higher class highly significant and significant, respectively. For the middle class, 26.8% and 43.9% of the respondents found in that order significantly and slightly significantly affordable. In contrary for the lower class, the affordability of real estate was found insignificantly affordable by 95.1% of the respondents (Fig. 4.3). This result is in accordance with Aqubamicheal (2009) finding which states that the residential real estate properties of sampled companies are totally unaffordable by the lower classes. As well, a more recent study of Shelemew (2016) state that almost all buyers of real estate properties are from the higher class of the society and members of the diaspora.

4.4 Direct factors affecting the real estate price

In the following section of the questionnaire the respondents were asked to give their perception on the relevance of 5 direct factors on the price escalation of real estate price in Addis Ababa, specifically physical characteristics of property, neighborhood, property location, accessibility of property and security. A four point Likert scale was again used to measure the responses; (1) = Insignificant; (2) = Slightly significant; (3) = Significant and (4) = Very significant.

4.4.1 Physical characteristics of property

Table 4.4 Physical characteristics of property influence on real estate price

	Size		Number of Rooms		Architectural Design		Construction Quality	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Insignificant	0	0.00%	1	1.61%	0	0.00%	0	0.00%
Slightly Significant	10	16.39%	14	22.58%	27	43.55%	17	27.87%
Significant	32	52.46%	25	40.32%	23	37.10%	36	59.02%
Highly Significant	19	31.15%	22	35.48%	12	19.35%	8	13.11%
Total	61	100%	62	100%	62	100%	61	100%

Source: Own Survey (2017)

It is to be noted that one respondent has not answered the question related to size and another one the question on construction quality.

The physical characteristics of property is one of the direct factors that affect real estate price. In order to evaluate this direct factor, we considered 4 indicators: size of property, number of rooms of property, architectural design of property and the construction quality of property. With regard to the size of property 31.15% and 52.46% of the respondents find that the size of a property highly significantly and significantly respectively influenced real estate price, the remaining found that the real estate size slightly significantly affects real estate price (Table 4.4). When we look at the number of rooms, 40.32 and 35.48% of the respondents believe that real estate price in Addis Ababa is significantly and highly significantly influenced by the number of rooms of properties. With regard to the architectural design of properties, the level of influence on real estate price is believe to be slightly significant, significant and highly significant by 43.55%, 37.10% and 19.35% of the respondents, respectively. Finally, 59.02% of the respondents find that construction quality of properties is significantly influencing real estate price, whereas 13.11% find this level of influence to be highly significant. The remaining 27.87% judged it to be only slightly significant. Owusu-Ansah (2012) study on residential property values in Kumasi,

Ghana, has also established from its analysis that the number of rooms, floors, and property age influence properties price.

4.4.2 Neighborhood

Table 4.5 Neighborhood influence on real estate price

	Property Neighborhood		Neighborhood Friendliness	
	Count	Row N %	Count	Row N %
Insignificant	3	4.84%	5	8.1%
Slightly Significant	51	82.26%	49	79.0%
Significant	6	9.68%	6	9.7%
Highly Significant	2	3.23%	2	3.2%
Total	62	100%	62	100%

Source: Own Survey (2017)

Asked about the extent to which the neighborhood of a property influenced real estate price, 82.6 % suggested that it was slightly significant. Similarly, with regard to neighborhood friendliness, 79% of the respondents found the level of influence slightly significant (Table 4.5). The result suggest that homebuyers of real estate properties do not give a big consideration to the characteristics of a neighborhood when making real estate decisions.

4.4.3 Location

Table 4.6 Location influence on real estate price

	Count	Row N %
Insignificant	0	0.0%
Slightly Significant	3	4.8%
Significant	21	33.9%
Highly Significant	38	61.3%
Total	62	100%

Source: Own Survey (2017)

With regard to the location of the properties, 61.3% found that the property location influence on real estate price to be highly significant. As well an additional, 33.9% of respondents agreed that the level of influence of location on real estate price in Addis Ababa is significant (Table 4.6). Property location has been proven to significantly influence property value in different real estate markets around the world as reported by Abidoye (2016), McCluskey et al. (2000), Kauko (2003), Ge and Du (2007), amongst others.

4.4.4 Accessibility of property

Table 4.7 Accessibility to property influence on real estate price

	Access to place of work		Accessibility to school		Accessibility to transport		Availability of amenities	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Insignificant	0	0.00%	0	0.00%	0	0.00%	1	1.61%
Slightly Significant	18	29.03%	30	48.39%	24	38.71%	35	56.45%
Significant	37	59.68%	27	43.55%	32	51.61%	15	24.19%
Highly Significant	7	11.29%	5	8.06%	6	9.68%	11	17.74%
Total	62	100%	62	100%	62	100%	62	100%

Source: Own Survey (2017)

The accessibility to a property is important and in order to evaluate this direct factor 4 indicators were used (access to place of work, access to schools, access to transport and availability of amenities). Asked about the importance of the access to place of work, 59.68% of the respondents stated that the access to the place of work significantly influence real estate price. With regard to the accessibility to school influence on real estate price, 43.55% and 48.39% of the respondents find it significant and slightly significant, respectively. The accessibility of a property to transport was found to significantly and slightly significantly influence 51.61% and 38.71% of the respondents, respectively. As well, 56.4% of the respondent found slightly significant the extent to which the availability of amenities influences real estate price (Table 4.7).

4.4.5 Security

Table 4.8 Security influence on real estate price

	Presence of security service		Level of criminality	
	Count	Row N %	Count	Row N %
Insignificant	7	11.29%	8	13.11%
Slightly Significant	44	70.97%	40	65.57%
Significant	6	9.68%	10	16.39%
Highly Significant	5	8.06%	3	4.92%
Total	62	100%	61	100%

Source: Own Survey (2017)

It is to be noted that one respondent did not answer the question related to the level of criminality. Security is one of the direct factors that influence price of real estate, for this factor we used two indicators: the presence of security service and the level of criminality). Among the respondents 70.97% of them find that in the context of Addis Ababa the presence of security service slightly significantly influences real estate price. As well 65.57% of the respondents find that the level of criminality slightly significantly influences real estate price (Table 4.8). This finding suggest that the respondent do not perceive security as a major factor, which is contrary to findings reported by Owusu-Ansah (2012) and Abidoeye (2016). This might be because all things being equal, considering the security factors such as the level of crime, number of drug users in Addis Ababa consumers feel safe and do not give a very high importance to security. It might also be because other factors such as location and proximity to facilities are more essential, especially considering the development status of Addis Ababa city.

4.4.6 Descriptive statistics for direct factors influencing the real estate price

Table 4.9 Descriptive statistics for direct factors influencing the real estate price

		N	Mean	Grouped Mean	Std. Deviation	Grouped Std. Deviation
Physical characteristics of properties	Size	61	3.15	2.96	0.68	0.72
	Number of rooms	62	3.10		0.80	
	Architectural Design	62	2.76		0.76	
	Construction Quality	61	2.85		0.63	
Neighborhood	Property Neighborhood	62	2.11	2.10	0.52	0.53
	Neighborhood Friendliness	62	2.08		0.55	
Location	Location	62	3.56	3.56	0.59	0.59
Accessibility of property	Accessibility to place of work	62	2.82	2.68	0.61	0.67
	Accessibility to schools	62	2.60		0.64	
	Accessibility to transport	62	2.71		0.64	
	Availability of amenities	62	2.58		0.80	
Security	Presence of security service	62	2.15	2.14	0.72	0.71
	Level of criminality	61	2.13		0.69	

Source: Own Survey (2017)

As we study the overall perception of the respondents with regard to the direct factors influencing price, location is perceived as the major direct factor influencing price in the Addis Ababa context with the highest mean score of 3.56. In second place are placed the physical characteristics of the property with a mean score of 2.96. Within the physical characteristics of the property the size (mean score = 3.15) and number of rooms (mean score = 3.10) are perceived as major factors influencing real estate price. Accessibility of the property was also considered has an important factor influencing real estate price with a mean score of 2.68. When we talk about the accessibility of a property the respondents ranked as follow: accessibility to place of work (mean score = 2.82), accessibility to transport (mean score = 2.71) accessibility to schools (mean score = 2.60) and availability of amenities (mean score = 2.58). Neighborhood and security influence on real estate price received lower ranks, mean scores of 2.10 and

2.14, respectively (Table 4.9). It is to be noted that all factors have a mean score above average (mean score= 2.0).

4.5 Indirect factors affecting the real estate price

In the following section of the questionnaire the respondents were asked to give their perception on the relevance of 5 indirect factors on the price escalation of real estate price in Addis Ababa, specifically country economic performance, population growth, taxation, employment and availability of new technology. A four point Likert scale was again used to measure the responses; (1) = Insignificant; (2) = Slightly significant; (3) = Significant and (4) = Very significant.

4.5.1 Country economic performance

Table 4.10 Country economic performance influence on real estate price

	GDP Increase		Inflation Rate		Interest Rate	
	Count	Row N %	Count	Row N %	Count	Row N %
Insignificant	1	1.6%	1	1.6%	1	1.6%
Slightly Significant	2	3.2%	1	1.6%	3	4.9%
Significant	5	8.1%	7	11.3%	5	8.2%
Highly Significant	54	87.1%	53	85.5%	52	85.2%
Total	62	100%	62	100%	61	100%

Source: Own Survey (2017)

It is to be noted that one respondent did not answer the question related to interest rate.

One of the in direct factors influencing real estate price is the country economic performance. In order to evaluate respondent’s perception on the level of influence of this factor in the current real estate price in Addis Ababa, we considered 3 indicators: the country’s GDP growth, inflation rate and interest rate. 87.1 %, 85.5% and 85.2% of the respondents agreed that the influence on real estate price of GDP growth, inflation rate and interest rate respectively is highly significant (Fig. 4.10). This result is in accordance with Kinyua (2010) study results showing that the improved performance of the Kenya

economy has contributed to increased prices of residential houses because of increased pay to public servants.

4.5.2 Population growth

Table 4.11 Population influence on real estate price

	Population Growth		Rural Exodus	
	Count	Row N %	Count	Row N %
Insignificant	2	3.2%	4	6.5%
Slightly Significant	41	66.1%	27	43.5%
Significant	14	22.6%	26	41.9%
Highly Significant	5	8.1%	5	8.1%
Total	62	100%	62	100%

Source: Own Survey (2017)

Population growth influences the demand side of real estate and in consequence real estate price. In order to evaluate the perception of respondents on this in direct factor we used two indicators: Addis Ababa city population growth and rural exodus. 22.6% and 66.1% of the respondents found that the city population growth significantly and slightly significantly respectively influenced real estate price. On the other hand, for 41.9% and 43.5% of the respondents the influence of rural exodus on real estate price was significant and slightly significant respectively (Fig. 4.11).

4.5.3 Taxation

Table 4.12 Taxation influence on real estate price

	Count	Table N %
Insignificant	0	0.00%
Slightly Significant	2	3.23%
Significant	7	11.29%
Highly Significant	53	85.48%
Total	62	100%

Source: Own Survey (2017)

Another indirect factor that influence real estate price is taxation. 85.48% and 11.29 of the respondents found that taxation influence on real estate price is highly significant and significant, respectively. The remaining 3.23% found that taxation influence was slightly significant (Fig. 4.12). This finding is in line with Shelemew (2016) finding that suggest that the rules and regulations that are related to VAT and surtax have escalated the price of houses to beneficiaries.

4.5.4 Employment

Table 4.13 Employment influence on real estate price

	Count	Table N %
Insignificant	1	1.61%
Slightly Significant	15	24.19%
Significant	33	53.23%
Highly Significant	13	20.97%
Total	62	100%

Source: Own Survey (2017)

20.97 % and 53.23% of the respondents found that real estate price is highly significantly and significantly respectively influenced by real estate price. 24.19% of the respondents found that the

influence of employment is slightly significant (Table 4.13). The employment status of the current working age population can indirectly influence real price. The response given suggest that it is perceived that at a certain level, the employment status of the population has improved and thus increased the purchase capacity of the population.

4.5.5 Availability of technology

Table 4.14 Availability of technology influence on real estate price

	Non-availability of qualified personnel		Non-availability of latest technology		Construction cost		Non-availability of alternative construction technique	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Insignificant	2	3.23%	1	1.64%	0	0.00%	1	1.61%
Slightly Significant	12	19.35%	15	24.59%	5	8.06%	14	22.58%
Significant	24	38.71%	25	40.98%	27	43.55%	30	48.39%
Highly Significant	24	38.71%	20	32.79%	30	48.39%	17	27.42%
Total	62	100%	61	100%	62	100%	62	100%

Source: Own Survey (2017)

It is to be noted that one respondent did not answer the question related to the non-availability of latest technology.

Availability of technology is cited among the indirect factors influencing real estate price. In this study in order to evaluate the respondent’s perception the cited indirect factor we selected 4 indicators: Non-availability of qualified personnel, non-availability of latest technology, construction cost and non-availability of alternative construction technique. 38.71% of respondent’s perceive that the non-availability of qualified personnel is highly significant where as another 38.7% of respondent’s find that the non-availability of qualified personnel significantly influenced real estate price. The remaining 19.35% and 3.23% of the respondents believe that real estate price is slightly significantly and insignificantly influence by the non-availability of qualified personnel. With regard to the non-

availability of latest technology 40.98%, 32.7% and 24.59% of the respondents find the level of influence on real estate price significant, highly significant and slightly significant respectively. Construction cost influence on real estate price is perceived highly significant and significant for 48.39% and 43.55% of the respondents. Finally, the non-availability of alternative construction technique significantly influenced real estate price for 48.39% of the respondents, whereas for 27.42% and 22.58% of the respondents the level of influence on real estate price highly significant and slightly significant (Table 4.14). The influence of construction cost on Addis Ababa real estate price has been reported in various studies (Aquabamichael, 2009; Eshete and Teshome, 2015; Shelemew, 2016).

4.5.6 Descriptive statistics of the indirect factors influencing real estate price

Table 4.14 Descriptive statistics of the indirect factors influencing real estate price

		N	Mean	Grouped Mean	Std. Deviation	Grouped Std. Deviation
Economic performance	GDP increase	62	3.81	3.79	0.57	0.57
	Inflation rate	62	3.81		0.54	
	Interest rate	61	3.77		0.62	
Population growth	City population growth	62	2.35	2.44	0.68	0.71
	Rural exodus	62	2.52		0.74	
Taxation	Taxation	62	3.82	3.82	0.46	0.46
Employment status	Employment status	62	2.94	2.94	0.72	0.72
Availability of technology	Non-availability of qualified personnel	62	3.13	3.07	0.84	0.76
	Non-availability of latest technologies	61	3.05		0.80	
	Construction cost	62	3.40		0.64	
	Non-availability of alternative construction techniques	62	3.02		0.76	

Source: Own Survey (2017)

When we assess the overall perception of the respondents on the in direct factors influencing real estate price, taxation and economic performance were perceived by the respondents as major in direct factors influencing real estate price with a mean score of 3.82 and 3.79 respectively. With regard to economic performance, all 3 indicators (GDP growth, inflation rate and interest rate) were found to be important (mean score of 3.81, 3.81 and 3.77 respectively). Similarly, the availability of new technology is among the highly scored indirect factors with a mean score of 3.07. The different indicators of this specific factor were scored as follow: construction cost (mean score = 3.40), non-availability of qualified personnel (mean score = 3.13), non-availability of latest technologies (mean score = 3.05), non-availability of alternative construction techniques (mean score = 3.02). Employment status of the working age population and the population growth were the in direct factors with the lowest ranks with a mean score of 2.94 and 2.44 respectively (Table 4.14). It is to be noted that all the factors received a rank below average (mean score =2).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

The Ethiopian real estate has been booming for much of this decade. In many areas, especially within the capital city, Addis Ababa, prices doubled and even tripled in a span of a few years. The general objective of this study is to assess and evaluate the main factors behind escalation of price in the real estate market in Addis Ababa, in order to provide valuable input to concerned stakeholders. In doing so the study tried to: (i) identify if the current real estate prices are affordable, (ii) investigate the macro-factors (indirect factors) that affect price escalation of real estates, (iii) examine the firm-level or (direct factors) that affect price escalation, (iv) assess the different stakeholders' perception with regard to the reason behind the price escalation and (v) provide necessary recommendation based on the results of the study.

The methodology of the study used survey data obtained through structured questionnaires. Sixty-two (62) questionnaires were distributed to selected real estate managerial personnel. Descriptive statistics was applied in order to analyze the data.

The study concluded that the managerial staffs of the real estate sector in Addis Ababa perceive that real estate price in Addis Ababa has indeed increased. From the data analyzed on change of real estate properties prices, 90.3% of the respondents rated highly significant change, 6.5% rated significant, 1.6% rated slightly significant while the rest of the respondents were of the opinion that there was an insignificant change in real estate properties prices. The majority of the respondents believe that the current price of real estate truly represents the market value of the property. The majority of the respondents 12.9% and 69.4% believe that the current real estate price is highly significantly and significantly the true reflection of the market value of the properties, respectively. Whereas 14.5% and 4.9% of the respondents find that the current real estate price respectively slightly significantly and insignificantly truly reflects the market value of properties, respectively. Also, the perception of the respondents indicates that the current real estate price is not affordable by the lower class. The market is mostly focus on the higher class of the Addis Ababa residents and the diaspora community. For 52.5% and 45% of the respondents the real estate price affordability for higher class is highly significant and significant, respectively. For the middle class, 26.8% and 43.9% of the respondents found in that order significantly and slightly significantly affordable.

In contrary for the lower class, the affordability of real estate was found insignificantly affordable by 95.1% of the respondents.

The study identified location, physical characteristics of property and accessibility of properties to be the main direct factors behind price escalation of real estate properties in Addis Abeba. It was observed that location is the major direct factor influencing the current real estate price in Addis Ababa. It is an important factor because there is a big price difference between properties situated in center of the city and the once located at the periphery of the city. Location is also linked to another major factor which is the accessibility of properties (accessibility to place of work, to schools, to transport and the availability of amenities). Properties close to major facilities and transport are more suited for living and therefore are more expensive. And in general in the context of Addis Ababa, these facilities are more developed in the center of the city, the periphery is still under development. The physical characteristics of properties (more specifically the size and the number of rooms of the property) are also one of the major direct factors influencing the current real estate price in Addis Ababa.

The study also observed that the main indirect factors are taxation, economic performance of the county and the non-availability of adequate technology. In fact, taxation is perceived as the major in direct factor influencing the current real estate price in Addis Ababa. The managerial staff that were part of the survey highly ranked taxation as the reason behind properties price increase. Rules and regulations related to VAT and surtax contributed to the housing price escalation. Economic performance of the country which means increased GDP, inflation rate and interest rate is the second major indirect factor influencing the current real estate price in Addis Ababa. The majority of respondents believe that the growth in economy of the country has contributed to increased income on the residents thus leading to high demand on property contributing to higher prices of residential property. Higher inflation rates and interest rates are also among the indirect factors perceived to have contributed to price escalation. The non-availability of adequate technology is the third major indirect factor perceived to influence the current real estate price in Addis Ababa. In fact, the non-availability of qualified personnel and the non-availability of latest construction technologies lead to higher construction costs and higher **sailing prices**. Alternative construction techniques could have been used in order to reduce construction costs but these technologies are currently not available.

Based on the above findings and conclusions of this study the following recommendations were made:

The Government should create a mechanism that will allow him to monitor the real estate price increase, especially since the current real estate price seems to only target the higher class and the diaspora. If the market of real estate continues to only target this specific group, the market might saturate and lead to a high vacancy of properties which in consequence will lead to fall of prices. Likewise, it is important to make sure that the current real estate price represents the true market value of properties. If this is not the case the price escalation might be a price bubble that can burst at any time and lead to major economic crisis.

Improving infrastructure developments that will improve real estate properties accessibility to transport and other important facilities all over the city might reduce the current price escalation of real estates located in areas where those facilities already well developed.

The country taxation laws and regulation of the real estate sector might need to be revised in order to make real estate price affordable, especially to the middle and lower class.

The country GDP growth may explain the price escalation of real estate but measures that could diminish inflation rate and bank loans interest rate may also contribute to improving housing affordability.

Finally, reducing construction costs by improving the number and the level of qualified personnel, by facilitating access to the latest construction technologies and through adopting alternation construction techniques which can reduce construction costs and limit the construction time periods will highly contribute to reducing the final real estate price and will in consequence improve housing affordability in Addis Ababa.

REFERENCES

- Abraham Tesfaye (2007), *Problems and prospects of housing development in Ethiopia*, Property Management, Vol.25, Iss.1, p.27-53.
- Abidoye, Rotimi Boluwatife; Chan, Albert P. C. (2016), Factors that influence real estate project investment: professionals' standpoint, Cape Town, South Africa
- Ahearne A. G., Ammer J., Doyle B. M., Koie L. S. and Martin R. F. (2005), *Monetary Policy and House Prices: A Cross-country Study*, International Finance Discussion Paper, No. 841, Board of Governors of the Federal Reserve System (US).
- Aqubamicheal K. (2009), *Factors affecting the real estate market: The case of Addis Ababa City*, Addis Ababa University.
- Belletini G. and Taddei F. (2009,) *Real estate prices and the importance of bequest taxation*. Working paper series no. 2577. CESifo.
- Berkovec J, Fullerton D (1992) *A general equilibrium model of housing, taxes, and portfolio choice*. Journal of Political Economy Vol.100, Iss.2, p.390-429.
- Bernanke B.S. (2010), *Monetary Policy and the Housing Bubble*. Presented at the American Economic Association Annual meeting, January 3.
- Carey, M. (1990), *Feeding the Fad: the Federal Land Banks, Land Market Efficiency and the Farm Credit Crisis*, University of California, Berkeley.
- Charles F.F. and Marcus T. A. (1987), *Real Estate Principles*.
- Connor P. Liang Y. (2000): *Four Forces Shaping the Commercial Real Estate Industry*. Pramerica Financial Research, November.
- Creswell J.W. (2003), *Research design: Qualitative, quantitative and Mixed Methods Approaches*. Sage Publications.
- Duenwald C. (2000). *Property Prices and Speculative Bubbles - Evidence from Hong Kong Sar*. International Monetary Fund.
- Eshete Z.S. and Teshome K.W. (2015), *Performance, Challenges and Prospects of Real Estate Financing in Addis Ababa: Micro and Macro Economic Implications*, American Journal of Economics, Finance and Management, Vol. 1, No. 1, p. 1-9.

- Feldstein M. (1982), *Inflation, tax rules and accumulation of residential and non-residential capital*. Scandinavian Journal of Economics Vol.84, Iss.2, p.293-311.
- Ge, X. J. and Du, Y. (2007). *Main variables influencing residential property values using the entropy method -the case of Auckland*. Paper presented at the 5th International Structural Engineering and Construction Conference, Shunan, Japan.
- Gelain, P. and Lansing K. J. and Mendicino C. (2013), *House Prices, Credit Growth, and Excess Volatility: Implications for Monetary and Macroprudential Policy*.
- Gervais M. (2002), *Housing taxation and capital accumulation*. *Journal of Monetary Economics*, Vol.49, Iss.7, p.1461-1489.
- Girma Y. (2015). *Major challenges of accessing housing project finance in Addis Ababa*,
- Golob, K., Bastic, M. & Psunder, I. (2012). *Analysis of the Impact Factors of the Real Estate Market: Case Slovenia*. *Engineering Economics*, Vol.23, Iss.4, p.257-367.
- Grissom T. and DeLisle J. (1999), *A multiple index analysis of real estate cycles and structural change*, *The Journal of Real Estate Research*, Vol.18, Iss.1, p.97-130.
- Herring R. and Wachter S. (1999), *Real Estate Booms and Banking Busts-An International Perspective*, Group of Thirty Occasional Papers No.58.
- Hilbers P., Lei Q. and Zacho L. (2001), *Real estate market developments and financial sector soundness*, IMF Working Paper, WP/01/129.
- Hilber C. and Vermeulen, W. (2012), *The Impact of Supply Constraints on House Prices in England*. Working Paper. London School of Economics & Spatial Economics Research Centre.
- Ian W. (2017), *Exploring Real Estate Investments: Characteristics Of Real Estate Investments*.
- Iman, A. (2006). *Basic Aspects of Property Market Research*. Penerbit UTM.
- Jarocinski M. and Smets F.R. (2008), *House Prices and the Stance of Monetary Policy*, Federal Reserve Bank of St. Louis Review, July/August 2008, p.339-365.
- Kalin C. H. (2005), *International Real Estate Handbook: Acquisition, Ownership and Sale of Real Estate Residence, Tax and Inheritance Law*.
- Karoki R. W. (2013). *Determinants of residential real estate price in Kenya*. University of Nairobi.
- Kothari C.R. (1990). *Research methodology, methods and techniques*. New age international publishers.
- Kneeshaw-Price S. H., Saelens B. E., Sallis J. F. et al. (2015), *Neighborhood Crime-Related Safety and Its Relation to Children's Physical Activity*. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*.

- Kinyua M.K. (2014), *An Investigative study on the factors causing price changes of residential houses in Nairobi over the period 2008-2012: A case study of Lavington*. University of Nairobi.
- Kiyotaki N. and Moore J. (1995), *Credit Cycles*, NBER Working Paper, No. 5083.
- Krugman P. (1999), *What happened to Asia?*
- Kauko, T. J. (2003). *Residential property value and locational externalities: On the complementarity and substitutability of approaches*. Journal of Property Investment & Finance, 21(3), 250-270.
- Leung C. (2004), *Macroeconomics and housing: a review of the literature*. Journal of Housing Economics 13(4):249-267
- Lieser K. and Groh A. P. (2011): *The Attractiveness of 66 Countries for Real Estate Investments – A Composite Index Approach*. In: ERES Conference Paper and IESE Working Paper, WP-868, Available at SSRN: <http://ssrn.com/abstract=1638286>.
- Li H. (2014), *The Effects of Demographics on the Real Estate Market in the United States and China*, Pace University.
- Lind H. (2009), *Price bubbles in housing markets: Concept, theory and indicators*. International Journal of Housing Markets and Analysis, Vol. 2, Iss. 1, p.78-90.
- Liow K.H., Ibrahim M.F. and Huang Q. (2006), *Macroeconomic Risk Influences in the Property Stock Market*. Journal of Property Investment and Finance, Vol.24, Iss.4.
- Mankiw G. and Weil D. (1989), *The baby boom, the baby bust and the housing market*, Regional Science and Urban Economics, Vol.19, p. 235–258.
- Mankiw N. and Gregory (1998). *Principles of Economics*. Wall Street Journal Edition. Dryden Press, San Diego.
- Maslow A. H. (1943). *Conflict, Frustration, and the Theory of Threat*. Psychological Review, Vol. 50, p.370-396.
- Mavrodiy A. (2005), *Factor Analysis of Real Estate Prices*, Kyiv-Mohyla National University.
- Mueller G.R. (1995), *Real Estate Finance*.
- McCluskey, W. J., Deddis, W. G., Lamont, I. G. and Borst, R. A. (2000). *The application of surface generated interpolation models for the prediction of residential property values*. Journal of Property Investment & Finance, 18(2), 162-176
- Miles, M. B. and Huberman A. M. (1994), *Qualitative data analysis: An expanded source book (2nd ed.)*. Newbury Park, CA: Sage.

Muli J. (2011). *The Relationship Between Property Prices and Mortgage Lending in Kenya*. Unpublished MBA Project, University of Nairobi.

Nance, C. (2003), *Modern Real Estate Practice in Texas*. Kaplan.

Oloke C. O., Simon F. R. and Adesulu A. F. (2013). *An examination of the factors affecting residential property values in Magodo neighborhood, Lagos state*. International Journal of Economy, Management and Social Sciences, Vol. 2, Iss. 8, p.639-643.

Order V. R (2007), *Housing and the economy: After the short run*. Ross School of Business Paper No 1087.

Owusu-Ansah (2012), *Examination of the Determinants of Housing Values in Urban Ghana and Implications for Policy Makers*, presented at the African Real Estate Society Conference in Accra, Ghana from 24-27 October 2012.

Pagliara F., Preston J. and Simmonds D. (2010), *Residential Location Choice: Models and Applications*. Springer.

Panagiotidis T. and Printzis P. (2015), *On the macroeconomic determinants of the housing market in Greece: A VECM approach*. GreeSE Paper No.88 Hellenic Observatory Papers on Greece and Southeast Europe.

Palinkas L.A., Horwitz S.M., Green C.A., Wisdom J.P., Duan N., Hoagwood K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. Administration and policy in mental health. 01.

Pettinger T. (2013). *Factors that Affect the Housing Market*, Economics.

Renaud B. (1999), *Real Estate and the Asian Crisis: Lessons of the Thailand Experience*. Paper presented at a conference on the dynamics of real estate cycles, New York University.

Reynolds P.D. (1982), *Ethics and Social Science Research*. Englewood Cliffs, NJ: Prentice Hall.

Seth H. (2012), *Predicting house price bubbles and busts with econometric models: What we've learned. What we still don't know*. Working Paper. Cambridge, MA: Lincoln Institute of Land Policy.

Skinner J. (1996), *The dynamic efficiency cost of not taxing housing*. Journal of Public Economics Vol.59, Iss.3, p.397-417.

Shelemew M. (2016), *Challenges of private residential real estate developments in alleviating the housing demand in Addis Ababa*, School of social science, Addis Ababa University.

Taylor, J.B. (2010), *An Exit Rule for Monetary Policy*, Testimony before the Committee on Financial Services U.S. House of Representatives, March 25.

Thomsett M. & Kahr, J. (2007), *Beyond the Bubble: How to Keep the Real Estate Market in Perspective and Profit No Matter What Happens*. American Management Association.

Turnovsky S.J., Okuyama T. (1994), Taxes, housing, and capital accumulation in a two-sector growing economy. *Journal of Public Economics* 53(2):245-267

Van den Noord P. (2003), *Tax incentives and house price volatility in the euro area*. *Economie Internationale*, CEPII research center 101:29-45

Vanichvatan S. (2007), Thailand real estate market cycles: case study of 1997 economic crisis, *GH Bank Housing Journal*, Vol.1, Iss.1, p.38–47.

Wang P. (2003), *A frequency domain analysis of common cycles in property and related sectors*, *The Journal of Real Estate Research*, Vol.25, Iss.3, p.325.

Xu X. E. and Chen T. (2010). *The Effect of Monetary Policy on Real Estate Price Growth in China*.

ANNEX 1
ST. MARY’S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

Research Questionnaire

The purpose of this questionnaire is to collect data from Real Estate company management level staffs that will be utilized to write a Masters of Business Administration (MBA) thesis entitled “Factors Affecting Price Escalation of Real Estate in Addis Ababa City Administration. The Case of Selected Real Estate Companies.”

Your participation in this research will lead to academic outputs that will advance knowledge and understanding of factors behind the current price escalation of real estate in Addis Ababa City; therefore, please answer the questionnaire as frankly as and reasonably as possible. Your participation in this survey is entirely voluntary and all information will be treated as confidential. Therefore, you are not expected to write your name. Give a true picture of your perception on existing reality of the raised questions.

The research is conducted under the attentions of the St. Mary’s University School of Graduate Studies and will comply with the St. Mary’s University ethical requirements.

Thank you in advance, for your cooperation!!

General Instructions

1. Please indicate your answer for general information by ticking (√) in the blank space
2. Please indicate your answer by ticking (√) on the appropriate box for the rest of the questions.
3. Please select only one among the options given in the Likert scales

Section I Biographical details

A1. Sex Male _____ Female _____

A2. Age 18-25 _____ 26-35 _____ 36-45 _____ > 45 _____

A3. Qualification: Please indicate your highest education level: (tick one)

High school _____ Diploma _____

Bachelor's Degree _____ Master Degree _____

A4. For how many years did you work for this organization?

Less than 2 years _____ 2 to 5 years _____

6 to 10 years _____ More than 10 years _____

A5. Current Position : Manager _____ Assistant Manager _____ Marketing Manager _____

Section II: Please Read each question carefully.

Thick (√) one option you think best suits you or that shows the level of significance or to what extent you find the stated factor to have influenced price escalation real estates.

Response scale: (1) = Insignificant;

(2) = Slightly significant;

(3) = Significant;

(4) = Very significant

		Insignificant	Slightly significant	Significant	Very significant
		1	2	3	4
1.	Current Real Estate Price in Addis Ababa City				
1.1	To what extent have prices of real estate increased?				
1.2	To what extent are real estate prices affordable to the higher class?				
1.3	To what extent are real estate prices affordable to the middle class?				
1.4	To what extent are real estate prices affordable to the lower class?				
1.5	To what extent the existing real estate prices are a true reflection of the market value?				
1.6	To what extent has the supply of real estate has influenced the prices of real estates?				
1.7	To what extent has the demand of real estate has influenced the prices of real estates?				
2.	Physical characteristics of property				
2.1	To what extent the size of the property influenced the prices of real estates?				
2.2	To what extent the numbers of room of the property influenced the prices of real estates?				
2.3	To what extent the building architectural design of the property influenced the prices of real estates?				
2.4	To what extent the property construction quality influenced the prices of real estates?				
3.	Neighborhood				
3.1	To what extent property neighborhood influenced the prices of real estates?				
3.2	To what extent neighborhood friendliness influenced the prices				

	of real estates?				
4.	Property location				
4.1	To what extent the location of the property influenced the prices of real estates?				
5.	Accessibility of property				
5.1	To what extent the accessibility of the property to place of work influenced the prices of real estates?				
5.2	To what extent the accessibility of the property to schools influenced the prices of real estates?				
5.3	To what extent the accessibility to public transport facility influenced the prices of real estates?				
5.4	To what extent properties availability of amenities (near facilities such as hospitals, gym, supermarket, education centers) influenced price escalation?				
6.	Security				
6.1	To what extent the presence of security service (security fence, security guard) influenced the prices of real estates?				
6.2	To what extent the level of criminality in the neighborhood influenced the prices of real estates?				
7.	Country economic performance				
7.1	To what extent has the country GDP increase has influenced the prices of real estates?				
7.2	To what extent has inflation rate influenced the prices of real estates?				
7.3	To what extent interest rates influenced the prices of real estates?				
8.	Population growth				
8.1	To what extent has Addis Ababa city population growth influenced the prices of real estates?				
8.2	To what extent has rural exodus (depopulation of the				

	countryside) influenced the prices of real estates?				
9.	Taxation				
9.1	To what extent taxation influenced the prices of real estates?				
10.	Employment				
10.1	To what extent the current employment status of the working age population has influenced the prices of real estates?				
11.	Availability of new technology				
11.1	To what extent the non-availability of qualified personnel has influenced the prices of real estates?				
11.2	To what extent the non-availability of the latest construction technologies influenced the prices of real estates?				
11.3	To what extent has the construction cost influenced the prices of Real estates?				
11.4	To what extent the non-availability of alternative construction techniques influenced the prices of real estates?				
Other	If you think that some major factors influencing price escalation have not been included in the list above, please add them on the blank cells below and specify their level of significance?				