

**THE PROCESS AND DETERMINANTS OF RESIDENTIAL HOUSE MARKET
IN ADDIS ABABA**

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SISAY ZENEBE**



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By

Sisay Zenebe



Approved by Examining Board

Advisor Tegegne G/Regzabab Signature [Signature]

Examiner Solomon Mulugeta Signature [Signature]

Examiner Wondimu Abese Signature [Signature]

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Abstract

Housing market is one of mechanisms that transfer ownership rights of a house with a combination of different attributes that is defined by its prices. The process and procedure in housing market is complex both for the sellers or buyers. Market participants lack sufficient information to undertake transactions. The paper tries to examine the process and procedure of the housing market and show how brokers facilitate the market. The price of the house is not determined arbitrarily. The implicit price of housing characteristics concerning the physical and location of Addis Ababa are examined in this paper. The elements of sales comparison of residential house depend on a package of attributes that are valued by the consumers. A model that incorporate for the quality of the house, age , floor area, size of the plot area, number of rooms availability of amenities such as market, elementary school etc. is presented and discussed. Hedonic price model is used to estimate the most important determinant factors. Data is collected from households' that buy residential houses in Addis Ababa. The result of the study suggested that the price of a house has increased tremendously over a short period of time. Most buyer of a house prefers plot size, older and structurally poor quality houses. The paper tries to demonstrate the behavior of residential house market consumers given the present housing condition of the city. The policy implication of this study is that the implementation of the urban land and housing policy of the city administration should be accompanied by improvement in the residential house market.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

In 1989, the World Bank estimated that real estate accounts for between half and three-quarters of national wealth. In a developed economy, and in both formal and informal markets in developing countries it is estimated that each year 5 percent to 10 percent of all private land is traded and that this is equivalent to 10 percent to 20 percent of GNP (World Bank, 1993). Housing investment alone typically comprises 2 to 8 percent of GNP and from 10 to 30 percent of gross capital formation in developing countries...Combining housing investment and housing services; the share of GNP originating in the sector is usually 7 to 18 percent.

Urban economic activity generates requirements for land and housing, which might be met by the existing stock of buildings or through new development. This requirement are mediated through a market process, which among other things, determines property values, allocates space between competing uses, and stimulates the production of new space through development and redevelopment.

A market is where parties trade interests in goods and services, and property as bundles of legal interests begins to shed light on the property market in institutional terms (Van der Krabben, 1995; D'Arcy and Keogh, 1998). The market is itself an institutional construct reflecting social patterns of power and influence and, as such, provides an institutional context for the activities of those who participate in market activities to develop, use or invest in property (D'Arcy and Keogh, 1998, p. 1219). Payne (2001) defined property as a recognized interest in land or property vested in an individual or group and can apply separately to land or development on it.

A well-functioning property market provides an effective way of monitoring property transactions and performance. In practice, the market is predominantly informal and decentralized, and this dictates the nature and flow of information and the recognition of opportunity. No actor in the market will have full and perfect knowledge about potential transactions, prices, etc., and there is inevitably a marked asymmetry of information between market participants (Dokko and Edelstein, 1992; Evans, 1995). Furthermore, the market is far from static. It functions within a framework of legal and policy constraints, both the broad context and detailed forms of market behavior will inevitably adapt to pressures for urban change.

Property rights are an important class of institutional arrangement comprising a number of characteristics including exclusivity, inheritability and transferability, supported by appropriate enforcement mechanisms (Alchian and Demsetz, 1973). Alchian and Demsetz define and establish the legitimacy of uses, which are viewed as exclusive, as well as identifying those who are entitled to exercise these rights.

Housing market in developing countries is generally highly disorganized. Information about who owns what is difficult to verify; squatting appears to be the rule rather than the exception, there is uncertainty about property rights. The legal and administrative systems for establishing, recording and transferring title are inadequate (Mayo et al., 1986). For example in Addis Ababa alone about 100,000 owners of private houses are waiting for title deed or they don't have the necessary documents to be eligible for the title.

Existing housing shortages, which have already led to a proliferation of informal settlements and squatter settlements, could become more severe with growth in the city population. Meanwhile, poor infrastructure, inadequate finance, and current property rights systems are frustrating efforts to meet demand. An efficiently functioning housing market, for example, will not only be more effective in satisfying the demand for housing, but is also likely to be more responsive in meeting the basic housing needs of the poor and the disadvantaged. Research in

housing market allows the proper definition of property rights and identities the process of transactions. This in turn helps to identify ways of improvements in the housing sector particularly in meeting the demand for housing.

1.2. STATEMENT OF THE PROBLEM

The manner in which property rights in reference to residential housing is defined and documented, the rights and obligations are expressed, and the extent to which they facilitate exchange of housing through rental or sales markets, have far-reaching implications on urban development activities.

There are three kinds of residential house holding in the city of Addis Ababa. These are residential house with title deed, houses occupied by book, and leasehold residential houses. Building permit for construction of residential houses is provided to the above-indicated legally authorized occupants.

The aforesaid holding systems provide the basic objective of securing house to use or transfer. Each tenure system has its own system of holding, transferring, and security and price attached to it. Without holding right of a house any urban development activity is unthinkable (with the exception of illegal occupation and tragedy of commons).

The city administration of Addis Ababa sells land-use rights to buyers of residential leasehold plot of land for a fixed period through auction, tender, or negotiation. Conversely, the transfer of houses occupied by individual residential house is marketed in housing market with the assistance of brokers. The city administration has a full control over the lease land market through its monopoly while it is indirectly involved in privately residential housing market in the registration of transfer, legal protection, urban planning, and property taxation.

As far as of land for construction of residential housing is concerned it is allowed only to cooperatives, real estate and residential leasehold through auction. A household that want to maximize its utilities other than cooperative housing, real estate or leasehold residential houses is forced to look for residential houses in

- the housing market, because free allocation of land for residential purpose was prohibited by the proclamation no. 80/1993.

In the last three years, the city administration has constructed and sold 10,209 houses while 7,124 privately owned residential houses were sold in 2005 alone. This implies relatively the share of the privately owned residential houses market in the Addis Ababa is greater than government sponsored housing development and market.

The market for residential houses in Addis Ababa however is not well developed compared to most developing countries. Both the buyer and seller of a house involved higher transaction cost in the searching process of house. The prevalence of higher transaction cost in the house market is the result of inadequate knowledge about the market value of residential houses. Because of information asymmetric the need of broker in the house market becomes a necessary. Brokers assist buyers and sellers of the house by providing information about the price or determinants of the house in the market. But the way and the manner how brokers operate are not clearly known. In addition whether the process of house transaction is facilitated or impeded house transaction needs to be identified.

The other significant problem of housing related to its valuation and factors that affect its price. The value of the total housing stock in Addis Ababa was estimated for the purpose of property tax using advanced computer technology in 1996. The Land Information System hence has estimated the price of the house. In the valuation system the main determinant factor of the house is considered to be its structure. Nevertheless, since its establishment the data is not updated. Lack of updating of the information stored in the Land Information System database has created a problem to the city government to collect the required revenue from property tax or transaction charges of the residential houses. The newly constructed houses after 1996 have to be valued by semi-skilled technician whenever these houses are transacted, and there is no standard valuation procedure across sub cities.

The absence of well-developed cadastre register and information about the real market value of residential houses has also negatively affected the housing market of Addis Ababa.

As residential property is a multi-dimensional commodity, characterized by durability, structural inflexibility as well as spatial fixity assessing the factor that determine its price is important. The market, in which housing is traded, differs from that of many other goods and services. Unlike other goods that are not constrained spatially, producers (i.e. property owners) cannot transport their products from one location to another. Consequently, we would not expect market-clearing prices to equalize across property markets. Thus, research into the variables that impact house prices is essential because the purchase of a residential house is both an investment decision as well as a consumption decision.

1.3. OBJECTIVE OF THE STUDY

The main objective of this study is an assessment of the residential housing market determinants and the process involved in market to achieve a new level of predictive and prescriptive evidences for Addis Ababa.

The specific objectives are:

1. To examine the process and procedure of house transaction
2. To identify the role-played by different actors such as brokers in the market.
3. To provide empirical analysis about factors that determine the price of the house;

The paper will answer the following research questions that is, is the process and procedure of house transaction is simple? Do various actors' involved in house transaction and what is their role in house transaction? What is the most determinants factor that determines the prices of the house?

1.4 METHODOLOGICAL FRAMEWORK

The basic argument underpinning the theory of institutional economics that is transaction cost and imperfect information serves the analytical framework of the paper. The study has employed the concept of hedonic model to make an empirical research on housing market determinants. The study used a combination of a survey and case study methods and in order to answer the research questions and arrive at valid and reliable results, the study uses both qualitative and quantitative data.

Purposive survey method using structured questionnaires is employed to collect a primary data. Data are collected from households that buy residential houses because it was difficult to find a seller. A total of 110 households were interviewed with socio-economic and attributes that are relevant to undertake the research.

1.4.1 Sampling Technique

A three stage sampling strategy was followed to pursue the survey.

First step, the house transfer registration book of the Land administration offices in each sub city was the sources document used to arrive at the list of transaction of a house. From these list houses transferred are identified. The information of house transfer list in each sub city provided as to identify the sub cities, which has larger transaction of houses. Hence Bole, Nifassilk Lafto, Kolefe Keraniyo and Yeka were selected from the ten sub cities. The selection criteria include the presence of large number of residential houses with varying types, the number of transaction of houses, and by examining the locational preference of buyers.

Second step, the selection and identification of the kebeles are developed with the assistance of workers in land transfer section of each sub city. The identification of kebeles was based on number of transaction of houses.

Third step, from the list of transaction of houses in each kebele the household that buy a house is identified and the house number easily obtained. Then

sample households were selected from the list purposively. Purposive sampling is mainly use in market research because the research is intended to examine the behavior of the transaction and assumed that all households are not involved in transaction. In a case study in form of group discussion is made with group brokers of houses.

The experienced brokers in Piassa and Megenagha were selected in the group discussion in each case four brokers were participating in the discussion. The brokers have provided basis information about their role in the market and the motivation of both parties and the price defining mechanism in the house market.

Secondary data from land administration offices of the city government of Addis Ababa, financial institutions, and private real estate developers is collected. Books, journals, document from archives different offices are used as secondary sources of to review relevant literature on the topic. Information from new paper advertisement is collected to enrich the study with sufficient data.

1.4.2 Data Collection Methods

In the survey and the case studies a face-to face interviews is employed as an instrument of data collection. The data collection method in a survey method is conducted by using structured questionnaires. The questionnaires consist of several parts that address various aspects of housing market transactions, building types, locational characteristics, transaction cost, price of a house etc. Experienced enumerators are employed in collecting survey data from each kebele recruited with the assistance of kebele officials.

The case studies employed data collection method using semi-structured questionnaires. The case study in forms of group discussion was conducted with brokers specialized in the house market. The information about price of the house together with its location, structure and demand and supply factors was obtained from the discussion. The discussion also focuses on the role and activities of brokers, how they function, share commission etc.

1.4.3 Presentations and Analysis

The data collected has been utilized to test the concept developed in context of institutional framework in predicting and estimating residential housing market by applying different techniques including: basic statistical description and a regression model. The result is presented in table format and SPSS Software has excessively been used in the analysis

1.5. SIGNIFICANCE OF THE STUDY

The contribution residential market to urban development was not incorporate in the strategic plan of the city administration. The study conducted by the city administration to date focuses mainly on the constructions of low cost housing while the significance of privately owned houses other than cooperative housing were completely neglected.

A greater number of researches in Ethiopia have studied effects of land tenure system by focusing on rural areas, on adoption of agricultural production technologies and resource managements. The research carried out by different scholars deals with on rural land rental market (Tesfaye, 2003, Kebede, 1988,) and rural land natural resources managements (Yeraswork, 1992, ILCA, 2000). Several studies have focused on theoretical analysis and the prospects for internal governance, and common property regimes of natural pastures. Few research paper deals with urban land market focusing on the urban fringe (Tadesse, 2002), kebele residential houses market (Bethel, 2003) of Addis Ababa while others deals with implementation problems related to the lease policy (Stepper, 2000).

However, this paper will have potential contributions on addressing the issues that are relevant to residential housing market. In this regards it is believed to initiate academic discussion. The result of the empirical hedonic price model is expected to provide valuable information to policy markers. Individuals or

institutions that are actively participating in residential housing market will acquire the necessary information.

1.6. LIMITATION OF THE STUDY

The theory of institutional economics is a recently evolved discipline. As a result knowledge gap both in theoretical as well as empirical terms, pose a limitation for the study to have well-established analytical framework. The house market is limited to private owned residential house market. There is no theory to dictate the correct functional form for the empirical study. However, the linear functional form is adopted in this paper. Difficult of finding Information on residential house market has significantly limited the depth of the study.

In addition, constraints of time, research budget, and logistical problems shade considerable limitations on the scope, coverage, and sampling size of the paper. Since the study is limited to focus on formal transactions of privately owned residential houses it did not examine and discuss the other house market. Given the above limiting factors of the study may not be fully conclusive.

CHAPTER TWO

LITERATURE REVIEW

2.1. CONCEPTUAL FRAMEWORK

Property rights as described by Williamson (1978) may further be specified as condition under which various types of transfer of rights may be affected and parties to whom such transfers may be made. He also placed important role for institutional arrangements that creates a mechanism for defining and enforcing property rights; that is, both formal procedures and the social customs and attitudes concerning the legitimacy and recognition of those rights.

Property rights also provide agents with the incentives to use land efficiently and to invest in land conservation and improvement. Technological progress also tends to reduce the cost of provision of property rights in land and housing and assumed to enhance the ability of its productivity uses. With more advanced stage of development and increased mobility of individuals and enterprises transactions among individuals who are not members of the same community are more frequent (North, 1977). As a result the scope of information asymmetric and hence land disputes increases. The price of house will then not reflect its true social value, and the extent of house transactions will be less than optimal.

House is traditionally an ideal collateral asset where land is scarce (Binswanger and Rosenzweig 1986). The lending is inherently a risky business, the problems of risk and uncertainty of creditors is reduced by the use of collateral on loans. The importance of building as collateral is dependent on asymmetric information and uncertainty of property rights. The availability of house as collateral and the registration of rights that makes such process creditable affect the willingness of moorages institutions to make loans.

In many developing countries including Ethiopia dealing with building registrations suffer from deficient system of handling such records. The legal framework in defining property rights may be excessively complex and requires various supporting documents.

Marketing residential house as a multi-dimensional commodity, characterized by durability, structural inflexibility as well as spatial fixity is difficult to make transaction. Each residential unit has a unique bundle of attributes: its accessibility to work, transport, amenities, the structural characteristics, neighborhood, and environmental quality (Yang 2000), (Watkins 1998). A house represents not only a collection of structural characteristics but also a set of location-specific characteristics.

Considering the market in which housing is traded, Raymond and Peter (2000) mentioned that the house market differs from that of many other differentiated goods in that it is fundamentally spatial in nature. Unlike other goods that are not constrained spatially, producers (i.e. property owners) cannot transport their products from one location to another. In the house market is a "Package Purchase" that is a household purchases three things at a time a house, location and neighborhood.

Indeed, spatial constraints in property markets ensure that, in the short run at least, the supply of properties to each market is extremely inelastic. Consequently, we would not expect market-clearing prices to equalize across house markets. Indeed, the equilibrium hedonic price schedule for any particular housing market will be unique to that market reflecting the specific conditions of supply and demand that exist at that locality.

Hence, housing consists of a diversity of factors that differs in a variety it possessed. Market forces determine the way in which different varieties of houses tend to determine different prices. For example, properties that have more bedrooms will tend to command a higher price in the market than properties that have fewer bedrooms. Higher-income households as well may be

willing to pay more for housing to maintain neighborhood homogeneity (Goodman and Thibodeau, 1998).

The hedonic price function is simply implicit prices for housing attributes and the mechanism by which these prices are determined in the house market. Utility-maximizing households choose a location to live so that housing services and accessibility are purchased jointly. House price accessibility and amenities are strongly connected. However, many amenity factors could affect the demand for housing and the utility of households (Yang 2000).

The components of housing units within a city cannot be assumed to be similar. On the demand side, assuming a given spatial distribution of preferences and income over households, a distribution over space of demands for these attributes may be imagined. The housing market is viewed as consisting of implicit markets for each of the attributes of housing (Rosen, 1974). House prices are determined by the demand for attributes, not only of the dwelling units themselves, but also of the region in which the units are located.

In Addis Ababa, for example, one attribute that might affect the price of a dwelling unit is the type of housing and the neighborhood that the house is located. Newly developed housing that has garden are generally tended to have higher prices. It is thus argued that villa type dwelling units have higher house prices than detached units that lack these facilities.

In this study, the discussion of the choice of a bundle of housing attributes is extended to include housing type, age of the housing unit, tenure type, quality of the house and number of rooms of the dwelling unit (Structural characteristics of a house). The sub city where the house is situated the location-specific characteristics of the house such as nearness to public transport; market and availability of amenities will be incorporate in the determination of house price. After a discussion placed on these housing attributes by households, a methodology that extends previous applications of hedonic price model will be developed to determine the various factors that determine residential housing prices.

The concept and methodology developed to undertake empirical study was carefully designed to fulfill the intended result and to test the theoretical framework. This paper utilizes on the econometric aspect of a broader empirical study conducted by various research works. An understanding can be gained through empirical studies of group of actors in the market. The overall aim of the study is the provision of empirical insights into the economic behavior the house transactions, to assess the process of transaction of residential houses, the institutional arrangements that regulate the transactions, and to evaluate the market outcome of these decisions and behavior. In this regards the paper shall provide some empirical evidence of the nature of the market and attempt a calibration of quantitative indicators of the urban residential market.

Classical economic theorists conceptualized markets as concrete places, but their focus was on understanding economic production and price setting, not exchange, and they failed to develop a theoretically useful concept of empirical markets (North 1977).

The neoclassic approach, which assumes that the market is perfectly competitive and each participant can buy and sell limitless quantities of land and uses without affecting the price determined by the law of supply and demand, like any other good, already incorporates some institutional variables, such as, the economic consequences of regulating the land market for prices and the legal- fiscal ownership regime.

Urban political economists, however, far from believing that the land rent can be technically and conceptually explained in terms of an intrinsic productivity of the land, describe it as a "produced" good that is subject to the same laws governing the production, circulation, and consumption of any other good. While according to the neoclassic thought land rent result from physical relations among things, from the standpoint of urban political economists, it results from social relations among people (Farret, 1985).

Urban political economists have disseminated two market alternatives (Farret, 1985). According to the first one, the production and allocation of urban land

should be determined by political-administrative mechanisms and not by the market, so as to avoid the private capture of any appreciation in real estate values, as in the socialist cities. The second one states that, in addition to traditionally accepted interventions of public authorities in the real estate market, such as zoning and tax arrangements, it must be based on positive aspects of the neoclassic approach, advocating the large-scale public ownership of urban land and, on a lesser scale, of housing, within a general market context.

In the first type of market, the ownership of land is exclusively the property of the state and the state administers, regulate and enforce the property market through its monopoly position in the supply side and institutional regulations and the administration of the demand side of the market. This is the case, among most countries such as China, Vietnam, Tanzania, Guinea and Ethiopia.

In this second alternative, the ownership of the real estate stock (including land) by the public sector would eliminate the speculative behavior that characterize the market through a planned (in time and space) supply in the form of sales, leasing, or temporary assignments. This is the case, among others, of land banks in Sweden and Holland; land nationalization in Great Britain; social rent housing in France; functional housing in Brasilia (Krabben, 1995).

As indicated earlier, Institutional economics on the other hand perceives property as a social institution implying a system of relations between individuals; it involves rights, duties, powers, privileges, forbearance, etc., of certain kinds. Property rights are a bundle of characteristics: exclusivity, inheritability, transferability, and enforcement mechanisms. Property rights define the uses in view of legitimacy, which has these exclusive rights.

Challenges to the economic conceptualization of markets and economic action developed in the 1980s as organization theorists and other social scientists became interested in empirical analysis of economic action. The conceptualization of markets as social structures, developed importantly by (Mark Granovetter 1985), moved discussion away from the neoclassical idea of the market as a logical abstraction ('the sum of all buyers and sellers'). Scholars

increasingly argued that there are markets, historically developed and varied institutions that both shape and constitute exchange relations. Social relations and institutions in the marketplace are not merely imperfections, rational strategic devices, or contextual factors, as economists hypothesize. Rather, the market is constituted by concrete social relations and is not merely a collection of rational individuals.

2.2 SCHOOLS IN NEW INSTITUTIONAL ECONOMICS

There are no clear confines and subdivisions of New Institutional Economics (NIE). However, (Bardhan, 1989) separates NIE into, a transaction cost school on one hand, and, a school that builds on imperfect information on the other. In this paper, transaction costs, imperfect information and collective action theory are categorized as three distinct frameworks as they are judged to differ widely in methodology and scope. In the following section the two main frameworks - transaction cost and imperfect information will be reviewed.

2.2.1 TRANSACTION COST

It was the work of the property rights school, especially Coase's influential article that sparked modern work on transaction costs and property rights. Transaction costs can be defined as all costs of entering into an agreement or contract: Searching for trading partners, negotiation, verifying information, monitoring, controlling and enforcing the contract including eventual litigation expenses (Coase, 1960).

The Coase, 1960 assumed four conditions to satisfy his argument: complete property rights, complete information and zero transaction costs, and no income effects, private negotiation will be sufficient for the optimal amount of externality to be attained.

The Coase assuming if conditions one to four are fulfilled, it implies that private negotiation between buyer(s) and the seller(s) will be sufficient for attaining the optimal amount of transaction. Thus, the Coase theorem implies that the optimal

situation can be reached without direct state intervention, but through complete and enforced property rights (Pearce and Turner, 1990). This does not make state regulation unnecessary. Property rights are never that complete, the informational requirements are unrealistic and transaction costs, e.g. in obtaining information and enforcing property rights, are likely to constrain private bargaining (Farrell, 1987), and hence a more direct role for state intervention to address environmental externalities and improve the information structure can be justified.

The Coase theorem provides valuable insights especially for market imperfection or transaction costs. It therefore directs the state action can thus prove useful to define, clarify and enforce property rights, to disseminate information and to reduce transaction costs. North operationalized the concept of transaction cost and showed how it can be used to understand and interpret institutions in economic history. North's central hypothesis is that the purpose of institutions is to economize on transaction costs (North and Thomas, 1973). An institution, which for given relative prices and technology minimizes transaction costs, is efficient.

North asserted that, In the course of history, western societies have developed from hunter-gatherer to agriculture and to industry by means of ever-increasing degrees of specialization. It is this specialization of labor, facilitated by a concurrent development of institutions, which has made possible the enormous growth in productivity and income enjoyed by the industrialized countries (North, 1989). In early society most production and trade takes place in small family units where control and agency problems are minimal. As the economy develops, still more trade takes place on distant impersonal markets and the scale of operations increases. Control and supervision measures therefore become essential.

A modern market economy with financial markets, long distance trade and large-scale production requires a high degree of trust and effective institutions to monitor agents and to punish those who cheat (North, 1991). Hence, the ability of

a society to develop efficient institutions that allow for specialization while limiting transaction costs plays a large role for its long-term growth pattern.

2.2.2 Imperfect Information

Imperfect information theory stresses the importance of missing, incomplete and asymmetric information as well as risk in shaping the relations between agents and providing the scope for institutions. Imperfect information theory comprise principal-agent or contract theory, which analyses the optimal design of contracts between two parties that possess factors of production in different proportions and hence are able to achieve mutual gains from entering into a contract.

Imperfect information theory is based on three central assumptions: firstly individuals are self-motivated, rational and adapt to circumstances, second information is costly to achieve and process lastly institutions adept to reflect these information (and other transaction) costs. Thus, institutions are not to be taken exogenous, but are endogenous, and changes in the environment may lead, with a lag, to changes in institutional structure (Stiglitz, 1986: p. 257).

The assumption of imperfect information implies that some markets are characterized by imperfect information, and transactions, which would be desirable under full information; do not occur (Akerlof, 1970). Hence, the potential role for the government in instituting and creating markets, regulating dysfunctional markets and disseminating information becomes apparent. But the informational problems faced by the private sector are not necessarily smaller for the government.

Government intervention often faces the same informational disadvantages that constrain the unregulated market in the first place. In practice, the efficiency argument for government intervention is a question of the relative magnitude of government failure relative to market failure (World Bank, 1993; Stiglitz, 1986). Principal-agent theory has been widely applied to study tenancy arrangements in the developing countries.

2.3 AN INSTITUTIONAL ANALYSIS OF HOUSE AND LAND MARKETS

Institutions are defined as the "rules of the game," both formal rules and informal constraints such as norms, conventions, and codes of conduct that provide the structure for human interaction (North 1990). Institutions emerge to minimize the transaction costs of exchanges. Personalized exchange emerges in response to commitment failure, in which the risk of breach of contract or opportunism is high, resulting from the lack of market information, inadequate regulation, and the absence of legal enforcement mechanisms. Institutions build trust and promote reputation and social capital, such as trade associations, solidarity networks, and groups that enhance ethnic or religious ties, emerge to circumvent commitment failure (Platteau 1994).

The concept of a 'market' encompasses the interactions between suppliers and demanders, where that interaction is voluntary and where access to the market is open to everyone. With that wide definition, it will be seen that most interactions in which house is exchanged are market interactions. The wide definition given to a market does not make any assumptions about the role of the price mechanism in those interactions between buyers and sellers.

There can be two other mechanisms by which suppliers and demanders reach agreement. First, in the structure of a network, where access to the market is controlled by invitation, trust is an important mechanism to get mutual agreement on the exchange and the price. An example of this structure is a family-transaction, where the purchase of land is restricted to family-members.

Second, is where access to the market is controlled by the one in power, rules are an important addition to the price mechanism. An example is the expropriation of land for public purposes. In both cases, the result is that the price paid is not necessarily that which makes the amount demanded and the amount supplied equal.

2.4 RULES FOR MARKETS

Institutional economics focuses on the rules, which people follow when they exchange something and on the effects of those rules on what is exchanged, on how much is exchanged, between whom, where, and at what price. Rules are particularly important when house is exchanged, for house is a durable good, which can be used at the same time for many different and non-exclusive purposes. So when someone acquires house, that person wants to know for how long the house may be used and for what purposes, whether the house may be transferred to other persons, whether others also have the right to use it, whether the courts will protect the rights if someone interferes, and so on. It is for these reasons that most countries have, and have had for hundreds of years, a system of property rights which the courts recognize and uphold.

There are other formal rules which affect house markets, such as regulations about land-use planning, about building, about environmental effects, about traffic effects, and so on. And there are financial regulations, which affect both the demand and the supply and, therefore, volume and price. These include fiscal rules, accountancy rules, inheritance rules, subsidies and levies. Such rules can erect barriers between suppliers and between demanders, and in that way can segment the house market.

Often there are informal rules too, which can have a big effect on the way in which house markets work. A good example is the trust that the citizen places on a public authority when one buys and sells house. If that trust is high, such market actions take place easily; if not, citizens do not cooperate. Then force, such as compulsory purchase, has to be used more. The rules, formal and informal, affect the costs of bringing about a transaction, the 'transaction costs'. A full and reliable cadastral register, for example, reduces the costs of acquiring information about who the owner is and if others have rights over the house. Statistics about recent sales prices reduce the cost of reaching agreement on a price. A clear land-use plan reduces the uncertainty about the uses to which the

land may be used and uncertainty about how neighboring plots of land will be used.

A predictable legal system gives certainty that the various rules will be upheld. Reliable and well-trained professionals can help to settle a deal quickly. In those ways, the rules affect the transaction costs on the house market. Transaction costs are the costs necessary to bring about an exchange or transaction, but not the price paid for the good or service or property rights.

This is important, not only for the effects on those who must pay the transaction costs. For the size of the transaction costs can affect also what is bought and sold, how much, the price, in what way, and by whom. For example, if rights in house are unclear, transaction costs will be high, which will discourage smaller, private buyers. At the extreme, no one will want to acquire house on which the rights are totally unclear, because of the great uncertainty.

When analyzing house markets, it is recognized that ignoring rules is unrealistic. In an analysis based on ideas from institutional analysis, the rules are placed within the analysis. The object of investigation is not just the market outcomes, but the market interactions as well.

All those rules create a structure which affects the availability of information, risk and uncertainty, transaction costs, organizations for buyers and sellers and brokers, etc. It is assumed that people act in a rational way within that structure. The results are the market outcomes: who trades, what, where, in what volume, at what price? The rules must be investigated, and also how people – the demanders and suppliers - react to them.

2.5 HEDONIC PRICE MODEL

Unlike other consumption goods, the housing market is unique because it manifests the characteristics of durability, heterogeneity, and spatial fixity. Thus, to model this differentiation effectively, the hedonic price model has been introduced.

According to Triplett (1986), hedonic methods were developed and employed in price indices, long before their conceptual framework was understood. Bartik, 1987 claimed that the first formal contributions to hedonic price theory were those made by Court in 1941, although there were other informal studies. Colwell and Dilmore (1999) mentioned that Haas produced a hedonic study more than 15 years prior to Court, who first published the term "hedonic." The term "hedonics" is derived from the Greek word *hedonikos*, which simply means pleasure. In the economic context, it refers to the utility or satisfaction one derives through the consumption of goods and services.

The hedonic price model assumes that goods are typically sold as a package of inherent attributes (Rosen, 1974). Therefore, the price of one house relative to another will differ with the additional unit of the different attributes inherent in one house relative to another house. The relative price of a house is then the summation of all its marginal or implicit prices estimated through the regression analysis.

Numerous studies have utilized this technique to examine the relationship between attribute preference and the price of properties (Sirpal, 1994; Walden, 1990). This is because the market price of a housing unit can be determined by the buyers' evaluations of the housing unit's bundle of inherent attributes, such as location, structure, or neighborhood attributes (Freeman, 1979).

Most of these studies were inclined towards housing markets in the West, America and Europe in particular. However, to date, no empirical work has been conducted to investigate preferences with respect to locational, structural, and neighborhood attributes amongst house buyers on the city of Addis Ababa. Attributes used in previous studies on the hedonic price model will be examined to establish housing attributes that are pertinent and applicable to Addis Ababa.

Two main approaches contributed greatly towards the theoretical work on hedonic prices. The first approach was derived from Lancaster's (1966) consumer theory, and the second comes from the model postulated by Rosen (1974). Both of these approaches aimed to impute prices of attributes based on

the relationship between the observed prices of differentiated products and the number of attributes associated with these products. The hedonic price approach also does not require joint consumption of goods within a group. Thus, Lancaster's approach is more suited to consumer goods, while Rosen's model is associated with durable goods.

Lancaster's theory assumes a linear relationship between the price of goods and the characteristics contained in those goods. Implicit prices are constant over ranges of characteristic amounts. They can only change when there is a change in the combination of goods consumed. In contrast, Rosen postulated that unless it is possible for consumers to arbitrage attributes by separating and repackaging them, a nonlinear relationship between the price of goods and their inherent attributes would be more probable.

A major empirical issue pertaining to the hedonic price model is the choice of the functional form. There are several basic functional forms such as linear, semi-log, and log-log forms that can be applied to the hedonic price model. An incorrect choice of functional form may result in inconsistent estimates (Goodman, 1978). Despite having a long history, the theory of hedonic pricing provides very little guidance on the choice of the proper functional form (Butler, 1982).

As the hedonic price model deals with the implicit prices of quantities of attributes of a product, the problem of misspecification of variables is inevitable. Over-specification gives estimated independent variables that are both unbiased and consistent, but inefficient because of the inclusion of the irrelevant variable, whereas under-specification results in estimated coefficients that are both biased and inconsistent.

According to Butler (1982), since all estimates of hedonic price models are to some extent mis-specified, models that use a small number of key variables generally would suffice. Butler suggested that only those attributes that are costly to produce and yield utility be considered in the regression equation.

A practical solution to the problem of missing variables, which may cause bias in the estimated coefficients, is to ensure that the data set used is homogeneous. When there is homogeneity, the use of the hedonic price approach is justified. Finally, to resolve the problem of stability of the coefficients when panel data are used (pooled time-series cross-sectional data); modeling with variable coefficients could be adopted.

The application of the hedonic price model to the housing market rests on several key assumptions. First, homogeneity of the housing product is assumed. This assumption, however, is arguable. It would be more accurate to view housing products as heterogeneous because they can be differentiated in terms of locational, structural, or neighborhood attributes, or based on some other criteria as well, such as type of dwelling.

Another underpinning assumption is that the market operates under perfect competition, and there are numerous buyers and sellers. This assumption is justified as there are many buyers seeking housing in the market, and there are also many housing developers or owners that supply the housing. Thus, no individual buyer or supplier can significantly affect the price of the properties because the purchases or sales of each individual unit constitute a negligible portion of the market.

Buyers and developers are deemed to have freedom to enter and exit the market. Unlike industries, such as the petroleum and aviation industries that may have to comply with certain requirements, there are neither constraints artificially imposed on the demand and supply of housing, nor restrictions on the resources used to produce the housing product. In practice however, there might be some budget constraints for the buyers and constraints imposed on the supply side. The assumption that buyers and sellers have perfect information concerning housing product and price is quite reasonable, although one may still contend that perfect knowledge is impossible to achieve in reality. Buying a house involves a substantial capital outlay.

Thus, buyers will effort to shop around to acquire as much information about the attributes of the units they desire before making the purchase. Most of the relevant information, such as availability of the housing unit, its price and attributes, is readily available can be obtained from brokers and real estate agents. As for suppliers, perfect knowledge of their core business and the market price enables them to increase their profits and utility, too. However, such perfect information may never be fully realized in practice.

Finally, the hedonic price model only works under the assumption of market equilibrium, and that there are no interrelationships between the implicit prices of attributes. Market equilibrium is not plausible because there are imperfections in the real world property market. It is idealistic to assume that the price vector will adjust instantaneously to changes in either demand or supply at any point in time.

The notion that there are no interrelationships between the implicit prices of attributes is also misleading because it implies that the implicit price of an attribute does not vary throughout all areas and property types. It is not necessarily true that all attributes will give the same level of utility or identical levels of disutility to all buyers.

Despite these disputable assumptions, which involve substantial simplification and abstraction from a complex reality, the hedonic price model has been deployed extensively in housing market research (Chau, 2001; Freeman, 1979). As cleverly observed by Freeman, the data may be inadequate; variables are measured with error; and the definitions of empirical variables are seldom precise, but these do not render the technique invalid for empirical purposes.

The hedonic price approach does have its merits. Its main advantage is that one only needs to have certain information, such as the property price, the composition of housing attributes, and a proper specification of the functional relationships. The marginal attribute prices are obtained by estimating the parameters of the hedonic price function. It is a straightforward approach because only the coefficients of the estimated hedonic regression are needed to

indicate the preference structure. No information whatsoever about individual characteristics or personal particulars of either the house buyers or the suppliers are required.

Ridker and Henning (1967) were credited as the pioneers who applied the hedonic price approach in residential properties. They investigated the relationship between air quality and property values, but it was (Freeman 1979) who was noted for giving the first theoretical justification for the application of this technique to housing. Specifically, Freeman used the hedonic price equation to measure the marginal implicit prices and the willingness to pay for housing attributes, such as environmental quality. Yang (2000) studied the hedonic price model with the risk of construction quality by using a total of 226 observations. In measuring residential property values (Raymond and peter 2000) have employed hedonic model for the case of Hong Kong by using weighted least squares and log regression. They based their study on 139 actual transaction recorded and obtained from a large broker firm.

In this paper the model is specified is linear regression hedonic price model. The model can be expressed as:

The market prices (P) of the property can, therefore, be expressed as:

$$P = b_0 + b_1 (\text{plot size}) + b_2 (\text{age}) + b_2 (\text{quality}) + b_3 (\text{rooms}) + b_4 (\text{type of house}) + b_5 (\text{travel time}) + b_6 (\text{floor}) \dots \dots U_i$$

Where b_0 is constant, b_1 (for $l=1, 2 \dots 8$) are the regression coefficients, and u is a random element that reflects the unobserved variations in the house price. The house price (P), plot size is a function of (total area of the plot), age of the house (age), number of rooms (rooms), travel time (travel time required to public transport, market and elementary school) and floor area.

The useful attributes considered by buyer of the house are the physical characteristics of the house, the location of the site in relation to market and accessibility, social and economic services. In view of the fact that the number and nature of factors that influence the house prices are large and

heterogeneous, house price can't be determined by the units' characteristics alone. The attributes that are considered are not exclusive to determine the price of the house but due to limitation of data are not incorporated in the model.

CHAPTER THREE

Current housing Condition

3.1 THE CHALLENGES OF RESIDENTIAL HOUSING IN ADDIS ABABA

The problem of housing could be discussed in relation to context to which the analysis is based. In this paper the housing problem of Addis Ababa will focus mainly on factors that affect the residential housing market and emphasis will be given to the quantity of the housing stock than the quality of houses.

Though the available information is not entirely accurate, according to current estimates, there are about 380,000 housing units in Addis Ababa. Out of the 380,000 housing units 140,000 are held by "permit" or pre 1974 ownership, 160,000 are owned by kebele and Rental Housing Agency, 20,000 are held by lease and around 60,000 are illegally occupied (Ministry of Federal Affairs, 2002). The report obtained from Ministry of Federal Affairs indicates that after the current government takes power, about 36,000 plots were allocated with title deed to cooperatives, individuals and real estate developers.

According to CSA, in 1984 the population of Addis Ababa was 1.16 million, the number of households was 270,000 and the number of housing units was 238,000 with a short fall of 32,000 Housing units. The average household size is 4.4 people. The 1994 census of population and housing indicate a population of 2.11 million people in Addis Ababa. The number of households in this year was 480,000 with 375,000 housing units implying an estimated shortage of 105,000 units. Thus the shortage of houses backlog during the ten years period (i.e. between the two censuses period 1984 to 1994) grows at a rate of 9.8 percent per year. This means that the shortage of houses in Addis Ababa grow more than three times the rate of growth of its population.

The estimates made by Addis Ababa City Administration in 2000 indicate that there is a backlog of 200,000 houses and additional 60,000 illegal houses. The growth in an illegal occupation of land implies that the urban poor find it as the only option to settle and build a house. The present shortage of housing is severely affecting the general housing condition of Addis Ababa. Housing scarcity in the city will be prolonged because of the inability of the current system to fill the housing deficit in a short period of time, and thus leading to higher housing prices.

The estimate of illegal housing construction was 4,300 in 1998; rose to 14,800 in 1994 and it was about 60,000 in 2000. These figures indicate the illegal housing growth at a rate of 25 percent per year.

The effect of deficit of houses has greater implication on the supply of land for residential purpose. Given the present average density of houses in the city and assuming the construction of 200,000 housing units (to fill the existing backlog of houses) at least 1750 ha is required. The provision of serviced land with infrastructure will be another burden for the city government. The cost of infrastructure is increasing from time to time. Even if the system could be capable of raising the necessary finance for infrastructural development, there is no mechanism developed for recovering land development. Hence, preparation of land for housing development and the provision of the basic infrastructural services could be one of the main constraints to housing production in Addis Ababa and future growth.

The production of low cost houses in developing countries in general and Ethiopia in particular has failed in the last two decades. The cost of construction of these houses is high (raise affordability issue), the provision of the basic infrastructure in particular is slow (compared to growing needs of the low income households), the provision of finance is non-existent. When the schemes are implemented they end up benefiting the middle or higher income group of households.

The legal framework, the administration and enforcement of the rules and procedures that are instituted have significance importance in promoting or hindering housing market. The constitution of the Ethiopian Federal Democratic Republic has provided the right of ownership of private property, however, the proclamations that followed the implementation of urban lease policy and expropriation proclamation in the name of public purpose can discourage private holding especially in the center of the city. Public purpose is defined as land such by the decision of the appropriate body in conformity with urban structure plan or development plan in order to ensure the interest of the people to acquire direct or indirect benefits from the use of the land and to consolidate sustainable socio-economic development.

House market is growing, given the existing policy frameworks and different factors affecting house transactions. According to Acts and Civil Status Document services in 1999 there were only 446 houses sold or transferred, it rose to 6740 houses in 2005.

Table-1. Residential house transaction from 1999 to 2005 in Addis Ababa

Year	Number of Transaction	Rate of Growth per year
1999	446	
2000	991	122.19
2001	1744	75.98
2002	3059	75.40
2003	4227	38.18
2004	5998	41.89
2005	6740	12.37
Total	23205	52.29

Source: Acts and Civil Status Documents service, Addis Ababa, 2006.

The housing transfer has increased at a rate of 52.3 percent during ten years period. The increase in the number of housing transaction that is given by the Acts and Civil Status Documents service can be explained by efficient services of the office, the legality of transfer of property, and non-existence of capital gains tax for residential house transaction. Because of the lifting of capital gains tax sellers of residential house unit are encouraged to utilize the services of office. The contracts agreements that were commonly practiced in the City “yemender wel” for the sell of property substantial replaced by acts and civil status document services. This is partly a result of improvement of the time required contractual agreement on the transaction which in most cases was 20 minutes. Thus buyer and sellers of residential house tend to prefer this service. However, the information about the past performance of housing market will be difficult to find because of lack of institution that records such data.

The decentralization of the services of the city to sub cities and the provision of efficient services delivery by Act and documentation service offices have made most transactions enter into the legal processes in relation to transfer of houses. In the past, most of the transactions made on residential houses did not enter into the legal process because of the fear of higher capital gains tax payments. For example, in 1999 only 2463 residential houses were sold in Addis Ababa while in 2005 this figure rose to 7,124 houses (Sisay 2000).

Information regarding residential house transaction, transfer of houses (various property transfer, heritance, and gift) and houses that are mortgaged by the banks was collected from the sub cities of Addis Ababa and presented in table 2.

Table-2. The transfer, sells and mortgaged Houses by sub cities in 2005

Sub city	Sells	Total property Transfer	Number of Houses Mortgaged	Total loan Amount	Average Value of house
Arada	68	287	93	309,628,572	3,329,340
Addis Ketema	78	151	86	197,345,420	2,294,714
Akaki Kaliti	490	677	490	1,636,439,726	5,436,643
Bole	2040	2975	342	986,456,345	2,884,375
Gulele	393	1033	414	674,044,600	1,628,127
Lideta	134	365	124	494,673,284	3,989,300
Kerkos	156	398	490	895,286,802	1,827,116
Kolfe Keraniyo	2019	2545	1098	320,614,145	291,998
Nefasesilk	1134	2830	776	823,577,367	1,061,311
Yeka	630	1689	255	226,700,000	889,019
Total	7142	12950	4168	6,564,766,261	1,575,039

Source: Land Administration offices of the Sub cities of Addis Ababa, 2006

The total transaction in Addis Ababa was found out to be 7,124 while the number of transfer of houses by the owner of a house for different reasons (heritance, gift, or sub division etc.) was 12,950 in 2005. Houses mortgaged to banks were 4,168 and the amount of money supplied by the banks through mortgage financing was more than 6.5 Billion birr in 2005. on average a unit of a house has

a collateral value of more than 1.5 million birr. The number of transaction of residential houses in the central areas (sub cities) of Addis Ababa is smaller than those sub cities in the peripheral areas. In the peripheral areas of the city of Addis Ababa such as Bole, Kolfe and Keraniyo, and Nefasilk and Lafto the number of residential houses transacted are more than one thousand. In 2005 the highest transaction of houses that is 2040 sold houses were registered in Bole sub city. In the same year 2019 houses in Kolfe keranyo and 1134 houses in Nefasilk Lafto sub cities were registered.

In order to avoid risks and uncertainty banks provide financial resources (to various economic activities) through collateral arrangements. Houses served as a means of securing financial resources. If all housing stocks had legal title deeds the amount of financial resource flow in the urban economy could have been much greater than the present figure. The value of a house estimated by banks for mortgaged houses is greater than the estimated value of the house by the city administration. The sample of 10 houses was collected from Lideta sub city to substantiate this argument.

Table-3. The estimate of house Value by banks and City of Addis Ababa, in birr

No.	Banks estimate	City administration estimate	Banks estimate / city in percent
1	350,000	299,909	116.7
2	150,000	171,547.36	87.4
3	240,000	62,720.88	382.6
4	4,574,602.24	6,242,805.96	73.2
5	10,000,000	20,902.36	47841
6	738,289.59	187,223.26	394.3
7	3,000,000	39,036.35	7685.1
8	2,000,000	41,321.35	4840.1
9	450,000	82,443.65	545.8
10	80,000	135,703.06	58.9
Total	21,232,890	7,283,613	296.3

Source: Lideta Land administration, 2006

The estimate made by the bank for mortgaged sample houses is three times larger than that of the estimate made by the city administration. On average banks provide more than 2 million birr for a unit of a house while for the same house the land administration collects a transfer charge of six percent assuming the estimated a value of 728,361 birr to the house.

The variation in the price of the house is the result of valuation method followed. Banks mostly consider the market price of houses and take into account the locational value of the house; in contrast the city administration does not consider the location value. The city land administration follows replacement cost approach based on the structure of the house. A full and reliable cadastral register could reduce the costs of transacting a house but it is not the case in Addis Ababa.

There are about 142,000 kebele owned houses in Addis Ababa. However, there is no clear policy direction that is provided about the prospect of these houses. The incidence of great number government owned houses out of the house market would directly affect the price of houses and the house market in the city. For example, kebele owned houses in Arada sub city is more than 65 percent of the total stock of the houses.

The local development plans prepared by the city administration with the objective of urban renewal have demolished 545 houses and replaced them by condominium buildings. From the total houses demolished, 499 were owned by kebeles out of these households only 99 households were resettled. The remaining households are sheltered in a shade (Arada sub city, 2005). Compensation for 37 privately owned houses was paid based on the estimate of the city administration.

The height and land-use regulation of the local development plans has discouraged potential buyers of houses because in most instances, they found the requirements of the plan difficult to meet. In addition, most of the owners of the houses in the old (center) settlement areas of the city do not have a legal title to sell or to transfer their rights or to fulfill the procedure and requirement because the legal process is complex.

Therefore, the planning approach, the ownership of government houses and the city administration urban renewal objectives has also significantly influenced residential house market of the city.

The persistence housing development through cooperatives and outward development of the city, the construction of the ring road and water supply projects by the city administration and the availability of large tract of open areas have contributed the construction of residential houses in the peripheries of the city. One reason that contributes for the greater number of transfer and sells of houses in the peripheral sub cities can be explained by the legalization of subdivision of a plot of residential houses. In the periphery of the city where the plot size is larger than the center the sell of house by subdividing residential plot is highly predictable.

3.2 THE HOUSING DEVELOPMENT STRATEGY OF ADDIS

ABABA

Decisions concerning land, whose rights count and how those rights will be managed are not just technical choices, but are highly political. The choice of structure to manage land rights and resolve land disputes and resource conflicts is a fundamental role played by the state throughout the history of Ethiopia.

The city administration has prepared a three years strategic development plan in 2004. The strategic plan placed housing development with multiple objectives. The main objective of the strategic plan was aimed at: the densification of the city slum areas with multistory condominium buildings, to promote micro enterprises, to privilege low income households to be the owner of houses and share the benefit of urban development, step by step reduction of the growing housing shortage thereby improving the standard of living of the inhabitants of the city.

The site of the construction of these houses will include the central as well as the peripheral areas of the city. In the center of the city 70 hectares of land will be prepared as part of the urban renewal scheme while in the expansion areas of the city 80 hectares will be prepared from the urban fringe farm lands. An additional 200 hectares of land will be developed for the construction of the 50,000 houses in various parts of the city. The demolishing of houses will be undertaken, since urban renewal program is an inevitable process of such action. However, the city administration considered the demolition of kebele houses as

sunk cost. The reduction in houses in the city is observed but this reduction assumed to be compensated with increments in the volume of multi-story buildings. The constructed multi-story condominium buildings are sold for residents of Addis Ababa, to accommodate the displaced household as a result of urban renewal. Individual households are required to register to buy these houses and the transaction will be on lottery basis. According to housing agency (2005) a total of 453,081 people have registered to buy condominium house.

Lottery particularly is drawn for studio type and one-bed room houses, which have a subsidy rate of 30 percent of the cost of construction that is, 665 birr per m². The two bed and three bedroom houses are currently sold by auction. In most cases the location people preferred is the center of the city. However, most of the houses are constructed in the expansion areas of the city. Apart from the greater number of registered people for buying condominium houses there is an indication of the mismatch between the preference of the registered individuals and the location of the construction sites.

Table-4. The market and the status of condominium houses, 2005

NO.	Sub city	Studio	1 bed room	2 bed rooms	3 bed rooms	Business	Sold units	House to be sold	Under construct
1	Kirkos	202	339	212	51	110	914	1800	886
2	Bole	258	495	458	19	168	1398	3128	1730
3	Akaki	133	264	127	51	14	589	1282	693
4	Yeka	177	684	185	11	64	1121	2627	1506
5	Arada	161	325	255	29	39	809	1994	1185
6	Lideta	141	308	178	8	29	664	1639	975
7	Nefasilk	314	1240	237	22	111	1924	5123	3199
8	Gulele	81	95	182	0	35	393	1173	780
9	Merkato	107	149	53	4	25	338	1127	789
10	kolefe	443	967	564	53	32	2059	8006	5947
	Total	2,117	4866	2451	248	627	10209	2789	17690

Source: The housing agency, 2006

The housing agency has sold 10,209 condominium houses to individuals of which 9,582 houses are residential. The condominium houses are not built as planned in the strategic plan. Those houses that are currently under construction

are 17,690 houses. The person who has got the lottery has been known by drawing a lottery but transaction and transfer is not made.

The Housing Agency was created as one of the institutions with the main responsibility of managing the existing public housing stock. The management administration and control of Kebele houses were the main responsibility of the Agency. There is no clearly defined responsibility of the housing agency related to enforcement of policies and regulations and standards.

Even the agency does not have any responsibility concerning the role of kebele houses in cases of demolition of these houses (for the purpose of urban renewal or upgrading) or the sales of land for urban development. Decision about publicly owned houses is more of political than social and economic. The location of condominium houses is not accounted in sell of these houses. However, the condominium house sold in lottery has higher house prices than the administrative price defined by the city administration. The city administration have sold 1344 houses are located near Ethiopian Civil Services Collage in 2005. The price of these houses was by far lower than the prevailing market price of houses (see annex). The modality of payment is based on credit basis and the buyer is required to pay with in twenty years periods.

CHEPTER FOUR

The Process and Procedure of Housing Transaction in Addis Ababa

The conceptual framework developed in earlier chapters has discussed that market for building is determined by the nature and characteristics of location. The nature and characteristics of location makes housing transaction difficult than the market to other types of commodity. Other goods and services can be easily transported to other places to make transaction faster but it is impossible in the case of houses.

The market for house is a place where the interaction between sellers and buyers takes place. As the result of this interaction the factors of demand and supply play critical role in settling the equilibrium that is the price. The buyer of a house (based on his/her financial resources) would like to maximize the utilities that are attributes of the house. A market-based housing finance system does not exist in Ethiopia, and is not likely to develop in the near future. In the absence of a market-based housing finance system, households have been self-financing most new construction on an installment basis. Existing homes are typically purchased using a single cash payment.

The seller of the house based on the legal right he/she has on the house tries to maximize profit by selling out his/her house to the possible buyer. Thus the paper will examine the process and procedure that have direct implications in the house market by focusing on the actors involved in Addis Ababa.

4.1. BUYERS AND SELLERS

The starting point of entering the residential housing transaction is making a decision to sell or to buy a house. Given the factors that affect buyers and sellers in residential housing (including forces of demand and supply), a household

· makes decision to buy or not to buy / sell a house. The decision households make is believed to be a rationale decision. There are various factors that motivated the households' decision to sell or not to sell a house. The main factors that affect the decision of households for selling a house are financial problem, speculative motive (higher price for a house), meeting housing the need of his/her household as a result of increase in income and change in life style, preference for living in a better neighborhood, court cases and family matter (in the case of separation or inheritance).

Once the households establish a decision about the sell or buying of a house both buyers and sellers start collecting relevant information regarding the transaction of residential houses in Addis Ababa. The sources of information are various according to the contact and status of the person. Friends and families are important sources of information. The first hand information about the supply and demand factors that would have unfavorable effects on the transaction will be analyzed before entering the market. This implies a rudimentary housing market analysis that will be made based on the capacity of the individual, with the assistance of friends, families and specialized brokers on the market for residential houses.

· Brokers who are engaged in housing transaction are the main actors that facilitate and assist the market of residential houses. Brokers provide the basic information about the house market both for buyers and sellers of a house. The information provided by the brokers depends on the comparative sells of the residential houses or list of houses sold. However, to determine the price of a house based on knowledge and practice of the brokers is the only option that prevails marketing a house in Addis Ababa. There is no one that gives accurate price information of a house; however for practical purposes functioning of the house market brokers are responsible to undertake this service.

The next step will be to ask the broker to find a seller or buyer of a house. The seller will fix the limit of the negotiation price and the selling price of the house while the buyer indicates the possible house he/ she anticipated to buy, that is, the bundle of characteristics the house he/she likes to possess. As soon as the broker gets the information either from the buyer or seller he/she starts to find the other part.

One broker alone can possibly find all the parties. In practice however brokers have a network within which they operate. The broker who obtains potential buyers will tell his colleague to find a seller of a house by providing the same information he obtained from the buyer, communication between brokers is frequent, mutual support, and trust is the main principle in their activities.

4.2 BROKERS

The role of real estate broker on the residential real estate market is increasingly important for a number of reasons. First of all, where there is a market economy, there is an intermediate. House market is not exception, so house brokerage is a result of real estate development. Secondly, the shape of rational housing consumer structure depends on the activity and good operation of house brokerage service in the market. At last, house brokerage can build a high-efficient housing transaction market by increasing the information efficiency and decreasing the transaction cost in order to ensure the benefit of buyers and sellers. House brokers indeed ensure the smooth circulation of real estate market. Meanwhile, the development of house brokerage services and the service itself depends on the demands of buyers and sellers for the service.

According to the literature that study about factors that influence the selection of broker-use, there are three primary factors: the cost of time; related experience about house search and transaction as well as the ability to obtain the related information. The real estate brokerage service in Addis Ababa is at its infant stage of the development process as compared to other countries. Most

participants of the house market in Addis Ababa have recognized the importance and convenience of broker in housing search and transactions. The main aims to use broker are “avoiding trouble” and “more quickly” facilitation of transaction. The main function of house brokers includes:

- to provide information about the housing market to buyers and sellers who have no other source of expert knowledge about conditions in the housing market
- to influence their client's purchases of other conveyance services, such as title transfer, clearance and escrow services
- Brokers often provide clients with preprinted standard purchase agreement forms and helps in the transfer of the house
- quality of service competition: multiple listing service (MLS) through which each member gains access to information available to other members
- brokerage commission are the same that is 2 percent for both buyers and sellers of a house

In order to provide the above mentioned service, broker charge both buyers and sellers a fee of 2 percent of the value of house transaction. Commission is shared among the participants of transaction.

According to the group discussion made with brokers of house, the entry into brokerage services is an easy task. An individual who has acquaintance with brokers has a good chance of knowing the activities of the house broker services. The acquaintance alone dose not help to become a broker, the person who is entering into the business should dedicate his time and money before becoming practical a broker. Learning by doing will be sufficient to entry to the brokerage occupation. The activities do not require training, but it needs greater interpersonal communication skill and trust. Trust is the main guiding principal in brokerage services. As the new person gain experience he will be included in the networks of the brokers. Most brokers are found in the business center of Addis Ababa, and can be easily identified in number in historically famous hotels.

For example, one can find a number of brokers in Jimma bar, Dehab hotel, Agonafer Hotel, Lion bar, Lem Hotel, Tele Bar etc. currently, with the expansion of the city brokers emerged in various areas particularly around junction points and road sides. Potential buyers and sellers of a house can easily find brokers around "Megenagha", "Hayahulet Mazoria", Casanchis, "ureal", Mexico square, etc. Brokers that, based their station in one locality have closer contacts with brokers in various parts of the city. The informal cooperation agreement is reached between brokers because of the commission that they share once the transaction is made.

The brokerage service and the commission that is received as a result of assistance they provide is not something that is gained without a cost. The brokers that were involved in the discussion explained that, for a transaction of a reliable buyer of a house one broker might spent birr 30 to 40 daily for telephone and transport services. The share of the commission then depends on the amount of effort devoted and cost incurred among brokers. On average four brokers that facilitate transaction of a house in both sides of the parties will be involved in one transaction of a house. The maximum number of brokers that would be involved is about ten people.

The introduction of mobile telephone service as indicated by the brokers has improved communication among buyer and sellers as well as the broker's network in the city. They also explained that for well experienced broker of a house one mobile telephone is not enough. They indicated reliable buyer of the house is the one that determines the transaction of a house. If the demand and requirements of the bundle of characteristic of the house is satisfied the transaction could be completed with in one day. However, in most instances it is difficult to find the ideal house the buyer perceived. The brokers also stated that the existence of greater number of sellers in their list than buyers.

The reason given by brokers was that, as sellers of the house are distributed in all parts of the city, the demand of a house by most buyers is inclined to selected areas of the city. They substantiate their arguments by pointing that; the buyer speculates the future returns of the house so as to maximize the returns of the money he spent. They stated that, house buyer prefer a newly developed areas of the city such as Bole, Old Airport, CMC, Gergi and Lafto areas than the central or old settlements areas of the city. For instance, the house that is brought to them for sell from old "Kera" has passed four years without any potential buyers.

The brokers has also mentioned that most seller of a house request them to find a house from their list once the transaction is closed. They estimated more than 50 percent of the sellers of the house at the same time are looking to buy a house. The capital gained as the result of growth in urban activities and population, shortage of newly constructed residential houses, the construction of roads; particularly motivate households to exchange the house and to look for another one. For example, the road that is under construction in CMC areas has increased the value of the houses particularly those houses along the road sides. The same explanation was given for the road constructed that connects "Wello Sefer" to "Gotera".

Cheating is common to cut or completely neglect the commission that is given to cooperating broker. There is statement mechanism practiced by brokers in the case of default and mistrust among the sharing of commission. The friends of brokers (colleague) will settle by arbitrating and giving judgment about the case and the judgment given will be final, if not sanction will be passed to the defaulter. Because the principle of trust and mutual benefit is the requirement of brokerage there will be no legal dispute, informal rules and regulations developed by them will be applied. If the broker fails to comply with the judgment they passed, sanction will be imposed on him. As indicated earlier brokers work in a network which is a desirable condition the activity requires, the sanction thus expels the defaulter from the system. Therefore, brokers will work together bound

with mutual benefit and informal rules and regulations. The transaction will be settled if the agreement is reached between the parties involved on the price of the house, of course, with the assistance of broker. The final step will be the authentication of documents and signing contractual agreement. The document that testifies the ownership right, the agreement of the spouse (for married individual), and clearance from banks and debts, condition of payments and handling mechanism will be included in the contract of the house. This preliminary document will then legally approve by the Acts and civil documentation services. Then the buyer or the seller as specified in the contract document starts the process of ownership transfer.

4.3 THE MUNICIPAL PROCEDURE OF THE TRANSFER OF OWNERSHIP OF HOUSE

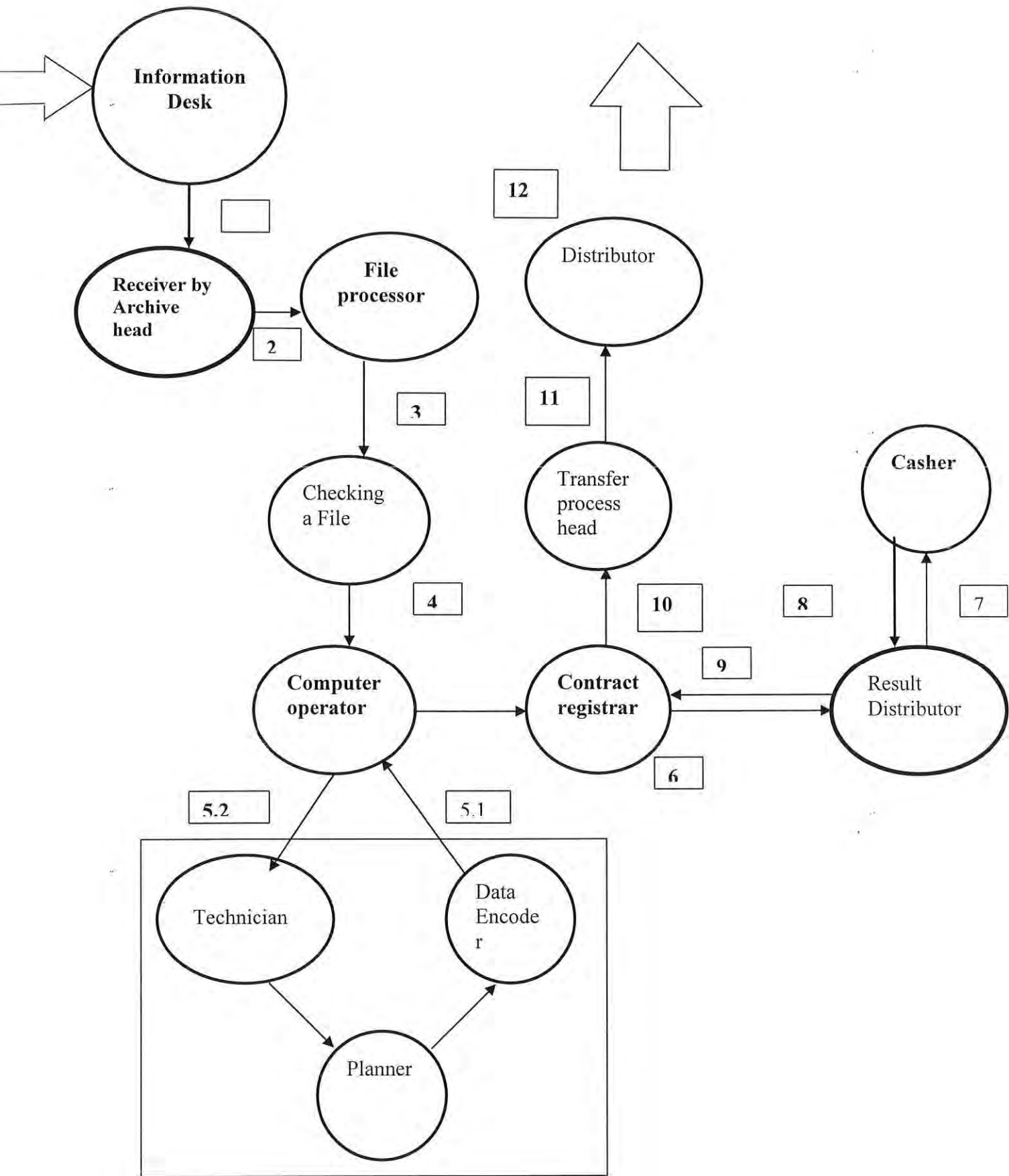
The land administration offices in each sub city are responsible to undertake the transfer of ownership of houses. The decentralization of the city into the sub cities was believed to deliver efficient services to the resident of the city at local level. One of the services devolved to sub cities is land and housing administration. The ownership documents and files are distributed from the archive of the municipality to sub cities land administration offices. The land administration offices were connected with the network of land information system of the city. The sub cities can then access the information they needed for preparation of bill of transaction and other charges. Therefore, any individual who want to transfer his/her right to another person has to go to sub city land administration offices where the house is found.

The transfer of house requires the fulfillments of relevant legal documents. The documents required by land administration for the transferring of house ownership include:

1. The person has to bring a legal documents issued by the acts and civil documents service regarding the sell or gift and court order of the inheritance of the house.

2. Original title deed or title book of the house
3. An identification card or passport or the owner or his legal representative
4. If the transfer of the house is requested by the legal representative, has to present legal document of representation of the owner from court or acts and civil documentation service
5. If the owner is married or the house is owned by more than one person, the agreement the spouse or the individual who has a claim of ownership on house has to supported and legal document has to be presented

Once all these documents are presented to the respective land administration office and supported by an application indicating the transfer services the process of the transfer of the ownership will start. The process of the transfer of house is diagrammatically presented below.



The ownership transfer process of house may be undertaken by the legally accepted owner (based on the presentation of the required documents indicated earlier) or legally delegated individual.

Step one: the client (seller or buyer) will ask the information desk worker about the service he/she needs. Application letter is not required thus based on the kind of services requested by individuals the necessary forms will be provided. The information desk workers will explain the procedure in filling the forms. The information desk worker will check whether the information is filled properly and the necessary documents are attached. The desk officer will give receipts for the documents he received from individuals.

Step two: the records and archive head check the documents received as to the fulfillments of the requirements and if might ask the client to fulfill the documents when the relevant documents are presented and requirements fulfilled he/she will record it and will pass it to the file presser.

Step three: the file processor will organize the document together with the application form request and pass to officer who is in charge of checking the file of the house legality etc.

Step four: the person who checks the file of the house will verify whether the owner of the house had bank loan or court order not for selling the house because of different cases. He/she also extensively checks the documents presented to him/her against copies in the file. If the documents presented are in line with the criteria lay down and they are correct and justify the owner of the house he/she will sign and confirms that the house is transferable and send the file to the person who issues a transaction bill.

Step five: in this stage the task of the computer operator will include:

5.1 If the house is registered in cadastre (land information system) he will sign and issue a bill for the payment of transaction tax. The person in charge of this task he will pass the file together with the bill to contract registrar.

5.2 If the house requested for transfer of ownership is not registered in cadastre (land information system) the operator will ask the urban technician for the valuation of the house. The operator will request the technician by filling a format about information that would be collected in the survey of the house. The operator will encode the information obtained from the technician in computer.

Step six: the contract registrar checks the file of the house whether there is a court order not to sell or transfer and banks collateral agreements. If there is court order not to sell the house or if bank loan is obtained through it as collateral, the transfer of the house will not take place. However, if it is clear from such cases he/she will prepare transaction tax and other charges notice and pass to the result distributor to reach the client.

Step seven: the worker who is signed as result distributor will give the form prepared in the pervious step to the person who applied for the transfer of house to pay the transfer tax and other charges.

Step eight: the customer after paying the transaction tax will present the receipt to the result distributor.

Step nine: the result distributor will pass the receipt of the transaction payments to contract registrar.

Step ten: the contract registrar will verify whether payment conducted is according to the amount stated and prepared in bill of the transaction tax or charges. Then he/ she will register the name of the buyer or to whom the transfer is made in the house transfer book. The registrar will prepare a letter to all concerned city administration bodies that inform them about the sell of the house and pass the file to the head of the transfer section head.

Step eleven: the transfer section head after examining the whole process and checking the procedure followed are in line with the rules and regulation placed for the transfer of house will approve by signing the letter. The file will be sent to the distributor.

Step twelve: the distributor will give the letters signed in the above step and the title deed to the new owner of the house. The person to whom the transfer carried out after signing the receipt of these documents will get the legal title deed. Then he will send the file to the archive.

The transfer process of ownership is not simple. In each steps there are different problems that an individual might be confronted. The household survey indicates that the transfer of ownership was found to be difficult by most house buyers since it might take more than six months. At least one third of the buyers have completed the transfer process with less than in a month's time. The main problem most people confronted in the process of transfer is finding the file of the house in the archives of the sub city land administration. Before the decentralization of the city into sub cities, all the files that indicate the ownership of a house were kept in the central archive of the municipality.

During the decentralization process house ownership files has been transferred to sub cities and the transfer of the ownership of houses becomes the responsibilities of the sub cities. However, the ownerships transfer section in each sub city complained that they do not received all files of the houses. The

heads of the archives did not officially count and received all the files send from the central archive. Thus files of the owner of the house deliberately or due to other reasons (files might be displaced with the file of other sub cities or lost) might not be easily accessed and in practice the land administration offices at sub city level were not accountable for the files that are lost.

In case where the file is lost the owner is required to submit the required copies of documents (title deed, identification card copies and original, building permit, the contract made with utilities etc.) that makes him owner. Once the transfer section received these documents, the owner is required to announce the case in newspapers for 20 days. Within 20 days if no person appears in court or the sub city and complains about ownership the transfer process will start as indicated, otherwise if a person complain about the house it will be a court case.

If the documents of house ownership are not available or not easily found by the owner, the owner has to check and verify in all sub cities archives weather his file exists or not. The house owner is also required to apply to police. The Police Station which received the application will investigate the case and shall write a letter stating that the documents are lost or not, to the respective sub city. The owner then has to apply to appropriate court together with the letter obtained from police. The court has to order the applicant to announce the case in the newspapers. The newspapers shall announce about the lost documents and other complains to appear in the face of the court. If no person appears in court, the court will order the sub city confirming the ownership of the house. The process of transferring the house starts after settling all this complications. Therefore, lack of systematic recording and management of files is one of the major problems that impeded transaction of houses.

In transferring houses one of the main tasks of the house transfer section of the sub city is the collecti0n of taxes and service charges as designated by law. The buyer of a house has an obligation of paying 6 percent of the price of the house.

In most cases the buyer of the house is concerned about the transferred process; the seller does not have any interest because he has already sold his right. The tax or charge of the transfer of ownership of the house as indicated in the flow diagram is based on the valuation of the city administration.

The transaction tax that will be paid by the buyer of the house is based on two conditions that are developed by the city. That is the transaction tax is depends on the declared price of the house agreements of the parties involved in the house transaction and on the municipality estimated value of the house. If the declared price of the house is greater the municipality estimated value of the house transaction tax will be based on declared price of the house. Otherwise, it will depend on the estimated value of the house.

Hence, in order to reduce the transaction cost that involved in the transfer process of the house, buyers and sellers will prepare two documents. One legally accepted agreement which both parties agreed. The second document is not legally binding but will be presented to the transfer section of the sub city that is much lower in amount that the actual price exchanged. Access to the estimated value of houses made the municipality is not that much difficult to obtain because all the sub cities are connected to the Land Information system and the information can be accessed from different sub cities. The absence of cadastre registration or lack of up to date information about the price of a house could certainly reduce the revenue of the city.

Thought the smooth operation of the transfer process depends upon the presentation of the required information to respective land administration offices by the buyer of a house, sub cities that have relatively large housing transaction takes months to process the house transfer. The decentralization of the city into sub cities assumed same type of organizational structure and manpower allocation system. In reality the structure of the sub city particularly the house transfer section has to be based on the load of works and the transaction of

houses that demand the services. During data collection period, the author of this paper has observed a number of people waiting in line for transfer process in Bole, Nefasilk and Kolfe sub cities. In the central sub city such as Arada and Addis Ketema the transfer process did not take a week because the number of house transaction is lower.

The parties that transacted a house did not go to the sub cities due to the complications that they confronted in the transfer section. A number of house buyers after receiving the legal documents of the house they bought, do not start the process of transferring of the house in their names. Most buyers legally delegate a person who liaison (only for) the transferring by paying certain amount of money. The transfer of the sold house is complicated and the buyers incurred unforeseen addition costs. The process of the transfer at least takes one month in most sub cities. The difficulty of house transaction could be viewed from the fact that the institutions that are responsible for providing the legal frame work, the administration and enforcement are nonexistent even if they exists they restrict the housing market than enhancing its efficiency.

CHAPTER FIVE

DESCRIPTION OF THE SURVEY RESULT

5.1. CHARACTERISTICS OF HOUSE BUYERS

The household surveyed reveals that 33.4 percent of the residential house buyers are females while the remaining 66.4 percent are males. The marital status indicates that married households account for 84.5 percent, unmarried or Single household head account for 11 percent of the buyers. The marital status of buyers obviously increase the house needs. The head of the household has to fulfill the demand of shelter for his family and himself by buying a house. The survey indicates that more than 50 percent of the households earn less than 450 birr and the average household income was 737 birr. The reported income, however, seems to be very low to enable a person to buy a house in Addis Ababa. It is quite known that most income data are not properly reported. The study assumes that the reported income is under reported.

The average house size is 5.3 per household while the household size for Addis Ababa is 5.1 per household. A total of 553 people have got shelter as a result of house market or changed houses as the result of this purchase. The size of the household has shown direct relationship with marital status of the households. Households with small families buy fewer houses relative larger family sizes. Households with four and more families account 80 percent of the total transaction.

Table-5 Household size of the house buyer

Household size	Frequency	Percent
1	2	1.8
2	4	3.6
3	16	14.5
4	26	23.6
5	14	12.7
6	19	17.3
7	11	10.0
8	11	10.0
9	1	.9
10	4	3.6
11	1	.9
12	1	.9
Total	110	100.0

Source: Household survey, 2006

The survey indicates that about 53 percent of the households are migrants while 47 percent of the households that buy residential house are born in Addis Ababa. Migrants buy more houses than a person born in Addis, since the high rate of migration is the main determinant factor for growth of population in the city.

Table-6 the Birth place of the household

Place of birth	Number of households	Percent
Addis Ababa	52	47.3
outside Addis	58	52.7
Total	110	100.0

Source: household survey, 2006

One factor that forced migrants to the city is the opportunity of better job and services. The existence of house market has positively shaped the migrants to find a shelter and job in the city. It does not mean that all the migrants find a house since the low income households mostly settled in the illegal housing.

More than 71 percent of the households migrate to Addis Ababa for finding a better job opportunity, 18 percent transfer from other places and 10 percent are looking for better educational services.

Table-7 Reason of migration

Reason for migration	Number of buyers	Percent
Nonimmigrant	51	46.4
looking for job	42	38.2
looking for education	6	5.5
transfer	11	10.0
Total	110	100.0

Source: household survey, 2006

The migrants who can afford to buy a house according to the survey result were relatively higher than non-migrants. To the migrant, given availability of financial resources, it will be relatively easier and a best option to access a shelter in the house market.

About 64 percent the household who bought houses are engaged in private business. Government workers account for 22 percent of the total purchase of a house while housewives account for 11 percent. One reason for a significant presence of housewives in housing market is that spouses prefer to have house under their name.

Table-8 Occupation of house buyer

occupation	Number of buyers	Percent
private	70	63.6
public	24	21.8
small-scale	1	.9
housewife	12	10.9
others	3	2.7
Total	110	100.0

Source: household survey, 2006

Housing preference is considered to be a way of life that the educated person prefers to have luxurious house with facilities and large space. The surveyed households reveal similar results to this contention. According to the survey the households who have educational level of greater than 12 grade were about 42 percent, while grade 9 to 12 accounts for 32 percent the remaining figure is accounted to those head of households that have educational level less than 9 grade.

Table -9 educational status

Educational level	Number of buyers	Percent
Illiterate	5	4.5
1-6	7	6.4
7-8	17	15.5
9-12	35	31.8
12and above	46	41.8
Total	110	100.0

Source: household survey, 2006

More than 50 percent of house buyers were living by renting house before they buy a house, 30 percent were living with their family and 13 percent sublet a

house from other households and the remaining 7 percent live by renting public housing. Finding rental house both private and public is difficult in Addis Ababa.

Table-10 the house the buyer live before the purchase of the house

Type of houses	Number of buyers	Percent
Sublette with other household	13	11.8
rented from private	56	50.9
rented from government	7	6.4
live with family	34	30.9
Total	110	100.0

Source: household survey, 2006

One of the advantages of the residential house market is the ease in terms of solving the difficulties in finding shelter. In finding rental house particularly, large families could face difficulty. In addition the rent of the house is escalating from time to time thus households prefer to purchase and own a house.

Most households according to the survey that is 44 percent were living in the center before they buy a house, 25 percent in peripheral areas and 27 percent in the same sub city while the remaining 4 percent in other areas. The change in the location of the household after the buying of the house is affected by a number of factors: change in the income of the household, family size, locational preference, speculation motive to increase in house price and tenure choice. Table 5 portrays the period in which the houses are marketed. There is an indication that there is a house market development during the current government.

Table -11. The period in which transaction takes place

year	Number of house sold	percent
1978-1988	12	11.0
1989-1998	40	36.3
1999-2005/6	58	52.7
total	110	100.0

Source: household survey, 2006

The houses transacted during the period of 1999 to 2005/6 have significant share from the surveyed houses. It can be observed from the table above that most of the houses were sold after a change in the government. The change in government has resulted a shift (some how) in urban land policy. The supply of residential houses in the Derg regime was satisfied by free land permit through cooperatives and self-help. The lease hold system restricted permit system of land allocation and issued the lease system. The land delivery was slow and was not able to cope with the growing population and the demand for housing. Due to shortage of residential housing that resulted from lack of proper distribution of residential houses the increase in house price is inevitable. The owners of the existing residential houses were able to harvest a capital gain without improving their houses. The increase in house price hence is one of the reasons for the growth in the number of transaction in the house market. The leaving of capital gain tax on residential houses particularly after 2003 has also contributed the increase in the number of the transaction of houses.

5.1.2 Description of the Structural Attributes of Houses

House transaction that takes place in a market is not priceless; households have to pay a price agreed in the market to acquire the house. The value of the house is determined in the market after looking at the different attributes embodied in the house. The price of the house is presented in table 8 present the result of the survey.

Table -12. The price paid to buy a house

price	No. houses sold	percent	Amount in birr	percent
10000 - 100000	64	58.18	3,787,000	2
100001 - 200000	20	18.18	3,543,000	2.1
200001 - 300000	11	10.00	3,180,000	1.9
300001 - 400000	5	4.55	2,555,000	1.5
400001 - 500000	0	0.00	1,400,000	0.8
500001 -1000000	6	5.45	18,182,000	10.8
1000001 >	4	3.63	37,150,000	80.8
Total	110	100.00	22,867,000	99.9

Source: household survey, 2006

According to the survey result, a total amount of birr 22,867,000 was spent for the transaction of 110 houses, an average price for unit of a house was found to be birr 207,882. The distortion in the average price of a house could be observed from the above table because ten units of houses have the share of almost 92 percent of the total amount of money devoted for the transaction of houses. However, more than 80 percent of the houses have a price less than birr 400,000. Assuming other factors constant, the period in which the transaction takes place also could also might influence the price of the house. Houses sold before 1986 have lesser price compared to the sells that take place after 1987. However, one can consider that the transaction of houses involves significant amount of financial resources. The absence of proper registration in the transaction of the housing market and the attached price, might lead a reduction in the local government finance.

The buyers of the house were asked to estimate the current price of the house and they estimated the total transacted house worth birr 60,880,000. Buyers of a house are assumed to have gained experience about the market mechanism and

the determinants of the house market. The estimate they provided is 266 percent greater than the price they paid for the house.

The quality of a house sold and surveyed indicates that 8 percent of the house is old and houses only with foundation of the house are 35 percent while 51 percent of the houses have good qualities.

Table-13. The quality of houses transacted

No.	Quality of the houses	Number of house	%	Amount of money	%	Average price
1.	Foundation only	37	33.6	8,074,000	35.3	218216
2.	Old houses	19	17.3	1,866,000	8.1	98210
3.	House in Better condition	50	45.5	11,750,000	51.4	235000
4.	Houses in very good condition	4	3.6	1,177,000	5.2	294250
	Total	110	100.0	22,867,000	100.0	

Source: household survey, 2006

The houses that are categorized as old highly require an additional cost for improvement or a person who buys this house once he/ she got a shelter might improve it later or use it if to speculate the market. The average price of houses with foundation is higher compared to the average price of other houses. Old houses have lower average price that is 98 thousand birr. The quality of the house in this case has negative relationship with the price of the house. Houses that have foundation only ultimately need the cost of constructing the whole structure in both cases the value of the house is lower than relative houses that have better quality. An individual who buys old houses and a property that have only the foundation indirectly implies that the transaction is undertaken for the preference of the plot size, the location of the house or nationhood. Rationally, an individual who has purchased old or foundation of a house, at least can

maximize his/her utility by allocating additional money and increasing the value of the house to a better use.

The age of the house is one of the important determining factors of the price of houses. The age of the house has negative relationship with the price of the house. New houses have higher price while old houses have lower price given these houses are located adjacent to each other. The survey indicates that relatively older houses are marketed in the city. Relatively new houses being few in the stock of houses of Addis Ababa, there number in surveyed housing market is small. The average of the house transacted is 17.3 years. The amount of money devolved for the purchase of 15 houses in the first classified age group costs birr 5,105,000 while houses in age group 16 to 20 require birr 4,050,000 million.

Table -14. Age of the house marketed

No.	Age of the house	Number of house	%	Amount spent	Average price
1.	1-5	15	14	5,105,000	340333
2.	6-10	11	10	1,965,000	178636
3.	11-15	21	19	5,433,000	258714
4.	16-20	27	25	4,050,000	150000
5.	21-25	21	19	3,067,000	146048
6.	26 >	15	14	3,227,000	215133
	Total	110	100.0	22,867,000	

Source: household survey, 2006

The table shows that relatively new houses have higher house prices compared to older house. However, houses that have larger floor areas are sold with higher prices than houses with smaller floor areas (table 9).

Table -15. The size of the house

No.	Floor area of the house	Number of houses	Percent	Amount of money spent	percent
1.	0-15	17	15.5	4,200,000	18.37
2.	16- 30	59	53.6	9,923,000	43.39
3.	31-45	24	21.8	3,409,000	14.91
4.	46 >	10	9.1	5,335,000	23.33
	Total	110	100.0	22,867,000	100

Source: household survey, 2006

The preference of household in this case is to have larger living spaces. This attribute of the house will be considered in the model. More than 94 percent of the surveyed house has four and less than four rooms. The type of house transacted is mainly ordinary accounting for 61 percent of the total. Most of the houses have been improved after they are bought, some are totally demolished.

Table -16.Type of the house

	Type of house	Number of houses sold	percent	Price of a house	Average price
1.	Ordinary house	67	60.9	10,858,000	162,059
2.	Attached house	3	2.7	303,000	101,000
3.	villa	14	12.7	7256000	518,285
4.	Foundation only	7	6.4	1590000	227142
5.	Service quarter	19	17.3	2860000	150526
	Total	110	100.0	2286700	207881.8

Source: household survey, 2006

The type of the house bought directly effect the price of the house. Villa type of house have higher price than the other type of houses. With One villa house a

person can buy at least more than three service quarters. Buyers prefer houses having separate compound than attached house and the price of attached house is the lowest among the type of houses considered. The price attached to the different attributes of the house structure indicates different values' depending on the location and neighborhoods the house is situated.

The buyer of the house prefers to be closer to road and public transport services and to market areas. According to the survey 90 percent of the households buy houses with less than 20 minute working distance to take taxi or public transport. Accessibility to road or transport services is an important factor that determines the price of the house. The neighborhood characteristics of the house assumed to be captured with accessibility variable of the location.

Table -17.Travel time to public transport

	Travel time	Number of houses sold	Percent
1	<10 minute	37	33.6
2	10-20 minute	53	48.2
3	.>20 minute	20	18.2
	Total	110	100.0

Source: household survey, 2006

The searching process of house in housing market in Addis Ababa takes at least two and more months. The search process is not simple in the house market; it may take more than a year, because the supply and demand factors that interplay in the market have their own effect on the buyers' preference. Information on house price is other factor that delayed the transaction.

Table -18. The time spent for searching a house

	Time spent	Number of houses sold	Percent
1	one month	17	15.5
2	2-3 months	35	31.8
3	3-6 months	28	25.5
4	7- months12	14	12.7
	more than 12 months	16	14.5
	Total	110	100.0

Source: household survey, 2006

Transaction of house is mainly conducted with the assistance of brokers. The means of transaction is based on negotiation. Brokers assisted about 79 percent of the transaction while family assisted purchase accounts for 15.5 percent. The buyers indicate that the assistance of brokers is vital for the transaction of houses. The buyers pointed out that they have to visit a number of houses before they settle the searching process to buy a house. More than 70 percent of the households have visited at least ten houses to buy a house. The transfer of ownership was found to be difficult by most house buyers since it might take more than six months. At least one third of the buyers have completed the transfer process with less than in a month's time. Therefore given the above description of the survey result, the paper will try to estimate the factors considered in house price by developing a model.

5.2 MEASURING THE DETERMINANTS OF RESIDENTIAL HOUSES IN ADDIS ABABA

Residential house price is determined by the buyer's evaluation on the bundle of attributes. The hedonic price model helps to explain the house prices in terms of the characteristics of the house. Each of these housing attributes assumed to be implicitly priced. The useful attributes buyers look for are the physical characteristics of the house, the location of the site in relation to market and

accessibility, and social and economic services. In view of the fact that the number and nature of factors that influence the house prices are large and heterogeneous, house price can't be determined by the units' characteristics alone. Therefore, the effect of different attributes must be compared by careful examination of the various factors.

For this particular study, types of houses, quality of the houses, age of the house, floor area of the house, plot size, distance to economic and social services (public transport, elementary school and market) numbers of rooms, time of purchase and location are considered. The data used to develop a Hedonic price model is based on the variables defined in table 14 covering the types of residential house, location, age, and quality and plot size etc.

Table 19. Defining the variable of the model

Short form	explanatory variables (expected sign)	definition of variables
PRICE	price (dependent variable)	price in Birr
AREA	Floor area (+)	Gross floor area in M ²
AGE	age (-)	from date of construction
PLOT	Gross area (+)	Area of the plot
QUALITY	House condition (-)	bad, good, very good
ROOM	Number of rooms (+)	number of rooms
TYPE	Type of house (+)	Type of structure
Location	sub city	1 if it is bole, 0 otherwise 1 if it is Kolefe, 0 otherwise 1 if it is N.Lafto, 0 otherwise
Time purchase	years (-)	number of years
Tran	availability of transport (+)	1 if it is within ten minute walking Distance to road, 0 otherwise
Mark	availability of market (+)	1 if it is within ten minute walking Distance to market, 0 otherwise
SCHO	availability of (+)	1 if it is within ten minute walking Distance to elem school, 0 otherwise

Parameter estimation is performed using the standard linear regression model

$$Y = \beta_i X_i + \varepsilon$$

where $Y = (y_1, \dots, y_n)'$ is an n -vector of observations on the explanatory variable, X is an $n \times k$ matrix of fixed explanatory or predictor variables, its i th row being $X_i = (X_{i1}, \dots, X_{ik})$, with $X_{i0} = 1$ to give an intercept, $\beta_i = (\beta_1, \dots, \beta_k)'$ is a k -vector of unknown regression coefficients ($k < n$) and ε an n -vector of random errors. The error vector ε is assumed to have a multivariate normal distribution with mean zero, and variance-covariance matrix $\sigma^2 I$, where σ^2 is an unknown scalar and I is the $n \times n$ identity matrix. The data comprised all residential houses sold. In total, 110 observations were obtained for the model. the description statistics of the variables are presented in table 20.

Table 20 Descriptive statistics

	Mean	Std. Deviation
price	189700	262036.7489
quality of the house	1.190909	0.952981363
age of the house	17.30909	8.489330005
floor area	27.15455	13.16736748
number of rooms	3.054545	1.501292187
type of the house	2.163636	1.594297595
plot size	370.4636	249.7513875
when do buy	7.172727	6.746877077

Dependent variable: Price

The price of the house ranges from birr 17,000 to birr 2 million with an average price of birr 189,700 Average the age of the house is 17.3 years. The floor size ranges from zero that is vacant land to 70 m². Using the explanatory variables as defined in table 14 and by using 110 households data in to the model the following result is obtained.

Result of the Model

The sample data was processed through SPSS, and it provided us the estimated multiple regression equation as expressed in the linear regression functional form

specification. From this result we can concluded that there is a positive relationship between the price of the house and its attributes that is, type of the house, plot size, floor area of the house, travel time to market and transport, Kolefe sub city and number of rooms of the house. Negative relationship between the price of the house, age of the house, the quality of the house, travel time elementary school, Bole and Nisasilk sub cities, time of purchase of the house and walling and floor materials of the house was observed.

From the result one can say that one meter change in the plot size of the house would increase the price of the house by birr 3,243.

Table -21. summery result of the model

Independent Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	210695.39	115947.10		1.82	0.07
quality of the house	-39966.96	31794.34	-0.15	-1.26	0.21
age of the house	-4784.26	3297.44	-0.15	-1.45	0.15
floor area	1092.99	2631.21	0.05	0.42	0.68
number of rooms	28566.95	25261.49	0.16	1.13	0.26
type of the house	15642.32	16285.84	0.10	0.96	0.34
plot size	189.82	98.93	0.18	1.92	0.06
when do buy	-10136.26	3782.39	-0.26	-2.68	0.01
BOLE1	-40372.50	59989.08	-0.08	-0.67	0.50
NIFASILK	-98159.07	103183.01	-0.10	-0.95	0.34
KOLFEKER	130262.70	85771.19	0.18	1.52	0.13
HOLLWBLK	-48298.69	55441.84	-0.08	-0.87	0.39
CEMENT	-39949.35	56898.75	-0.07	-0.70	0.48
LESSTHAN	28028.42	53506.94	0.05	0.52	0.60
LESSMARK	61641.68	68642.50	0.08	0.90	0.37
LESSSCHO	-30667.71	60643.56	-0.05	-0.51	0.61

By referring the estimated value of the coefficients we can not make conclusive judgments. The point here is that we have to test the fitness of the model that is we have to test weather there exists significant relationship between the price of the house and the attributes. F test is used to test weather or not there exists significance relationship between the price of the house and all other independent variables. The F test indicates that for this particular model F =

2.022, and the table value = 1.913. Hence since $F > F_0$, we reject the null hypothesis and we can conclude that a significant relationship exist between the price of the house and the independent variables. The t test shows that the plot size and the time of purchase are significant at 95 percent level of confidence.

The regression result in the first row of the summery of the model explained about the variation accounted by the model while the residual explain the variation that is not accounted by the model.

Table-22.summery of the model

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
0.585	0.342	0.237	228905.405	0.342	3.256	15.000	94.0	0.000

The table indicates the strength of the relationship of the model and the dependent variable. Almost more than half of the relationship between the price of the house is explained by the model. The explanatory power of the model is 58 percent of the variation in house prices. The multiple correlation coefficients (R) is the linear correlation between the observed and model predicted values of the price of the house. The variation that is explained by other factors (that is not accounted) by the model is about 77 percent.

The variation a price of a house is explained by r^2 and about 34 percent of the variation in price is explained by the model. Without prior knowledge of the price a house, the best guess for the house price would be about birr 189,700 with standard deviation of birr 262036.7489 (see descriptive statistics) while with the linear regression model the error of the estimation is considered to be lower birr 228905.405.

The acceptability of the model is tested by using the ANOVA table. The model is acceptable and is significant to explain the price of the house. Because the

significance value of F statistics is less than 0.05 percent, which imply that the variation explained by the model is not due to chance.

Table -23. ANOVA (b)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	2558912780883.33	15	170594185392.22	3.256	.000(a)
Residual	4925382319116.66	94	52397684245.92		
Total	7484295100000.00	109			

a Predictors: (Constant), LESSSCHO, age of the house, floor area, NIFASILK, HOLLWBLK, LESSTHAN, when do buy, LESSMARK, plot size, type of the house, CEMENT, BOLE1, quality of the house, KOLFEKER, number of rooms
 b Dependent Variable: price

The quality and age of the house (structure attributes), distance to public transport and distance to the market has negative relation with the price of the house. This implies that, relatively new house with good condition has higher price than old and low quality houses. The result of the area (plot size) is significant at 95 degree of freedom. The variable that determinate the price of house in the case study is plot area.

The paper try to explain the use of a price model is important in the determination of the price of a house. There are various hedonic price models but each has its own limitations. There is no standard specification of hedonic model the model could be used based on the data and needs of the researcher. The house market itself is inherently dynamic, stochastic, multidimensional and independent entity. For example, increase in the income of the household can induced increase in the price of the house for higher quality houses and location. The hedonic price analysis it assume that individuals tastes and motives to be the same. A careful and accurate analysis such a model however can be useful in helping sellers set asking prices, and buyers set offering prices and in bringing both parties together towards agreed house price.

CHAPTER SIX

6.1. CONCLUSION AND RECOMMENDATION

Market participants, both government institutions and the public at large have been observed lack of knowledge about the price of a house. The absence of such information has affected the transaction of houses. The sellers of the house are forced to set higher price of his house in order to maximize profit. The buyer offering price o other hand is motivated for a house that maximizes his utility given his financial capacity. The interaction between the markets participants were not as easy as buying other goods and services and the negotiation would takes energy and time.

The institution involved in house valuation and marketing uses different methods. House held as collateral by the banks has relatively highly value than the municipality estimates. The city administration uses different prices for the sells of condominium house. Individual displaced from the site of the condominium construction and who can afford to pay 30 percent of the construction cost of the house was able to buy the condominium house. The condominium house is also sold through auction. The administrative price placed for marketing houses by the city administration have highly distorted the house market in Addis Ababa.

If all privately owned houses in the city have legal title the "dead capital" that could be utilized in the economy will be greater. The financial flow as a result of collateral of houses through the banks is one of the advantages of the contribution of housing to the urban development.

Brokers play an important role in facilitating transaction of houses but the activity has to be legalized, code of ethics and standardize services requirement has to be developed. Brokers themselves find difficulty in finding either the seller or the buyer, if each broker handles only a seller and the other specializes in finding only buyer (Multiple Listing System) thereby specialization on their services could be enhanced. This system can improve their service and commission earned.

The multiple listing systems (MLS) are a mechanism whereby brokers in a city co-operate in the marketing and sale of property. One broker, the listing agent, may sign an agreement with the vendor to list a property for sale. Another broker may find a purchaser and become the selling agent. Commission earned on the transaction is shared between the brokers, which in turn share their portion with the sales persons involved.

Speculative motive is one of the causes of increases in the prices of house. The supply of residential land is restricted that contributed for a houses subdivision, sell of older houses, houses with foundation, and service quarters. The price of condominium houses in the central part of the city has escalated a house in Arada "Tekel Haynamot "area registering a maximum price paid of a residential house, i.e. birr 7,000 per meter square. In Addis Ababa most sellers of a house at the same time are buyers of houses. The transaction taxes of the sold houses are un-recovered because they want to avoid the bureaucratic transfer process; sellers usually give full legal rights to the buyer.

The stock of houses has been reduced due to urban renewal process, even if condominium houses are build on the site of the demolished houses the value of the kebele houses are not recovered and mostly they are considered as sunk cost. No compensation is given to kebele houses while privately owned house are compensated with price equivalent to their replacement cost and with additional allocation of 150 m² plot of land. The houses of rental houses agency is paid by their current prices. The variation in determining the price of houses is distorted by the inconsistency in the application of the value of houses by the city administration.

Policy of the city rather than enhancing the house market has become constraints. There is no indication of privatizing kebele houses, the urban renewal program is reducing the existing stock of house without considering the social end economic value of the house, the ownership transfer process is cumbersome, and the provision of land for residential purpose in the periphery of the city leads to an increase in the infrastructure cost which is not recovered.

The administrative price set by the city also increases the distortion of the house market.

The construction of condominium houses has contributed to growth in the housing stock and can be seen as positive contribution in the residential house market. The administrative prices attached to these houses tend to increase the prices of houses.

Lack of housing registration, inefficiency in administration of the transfer process, slow development of the real estate activities, lack of proper valuation system, the absence of educational institutions have contributed significantly for the low level of development of the house market. The income of the majority of the population being low they are not able to take parts in the housing market. In is worth mentioning that, efficient service delivery by the Acts and Civil Documentation Office has positively enhanced the market of residential houses, buyers and sellers become confident in the transaction, such that their contractual agreement about the transaction could be processed easily. The sub cities have to be strengthen the in terms of manpower and the system of delivery of services have enhanced.

The paper try to determine the price of the house but in so doing the main determinate factor that determine house price is plot size of the land. Therefore, in reality it was land that is sold in house market, the land supply residential house and the administration of this land the best solution for the current acute problem of housing in the city. Older and low quality houses are preferred by house buyer, this implies that buyers are motivated not for immediate uses of a house but they wants to improve the house for higher uses or speculation purposes.

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ANNEXES

Annex 1. Household Survey Questionnaires: this questionnaire is designed for house market study in Addis Ababa to be filled by buyer of a house. Background information

1. Address of the household

- 1. Name _____
- 2. Sub city _____
- 3. kebele _____
- 4. House no. _____

2. Sex

- 1. Male
- 2. Female

3. Marital status

- 1. Married
- 2. Single
- 3. Divorced
- 4. Widowed
- 5. Separated

4. Household size _____

5. Place of birth

- 1. Addis Ababa
- 2. Outside Addis Ababa

6. If the answer is (2) the reason for coming to Addis Ababa

- 1. Looking for job
- 2. Looking for better education
- 3. For better health service
- 4. Transfer
- 5. Displaced

7. Type of occupation engaged

- 1. Private
- 2. Public employee
- 3. Small-scale industry
- 4. Housewife
- 5. Other (specify)

8. Educational status

- 1. Illiterate
- 2. 1-6
- 3. 7-8
- 4. 9-12
- 5. 12 and above

9. Monthly Income

10. Before buying this house how do you live

- 1. By subletting a house
- 2. Rented from private
- 3. Public house (kebele)
- 4. Living with family

11. In which part of the city you where living?

- 1. Center of the city
- 2. Fringe of the city
- 3. In the same Sub City
- 4. Other (specify)

II. Housing characteristics

11. When do you buy the House?

12. How much do you pay for the house

13. Quality of the house

- 1. Old house
- 2. In better condition
- 3. Very good condition

14. What is the estimated age of the house

15. Size of the floor area of the house (m2)

16. Number of rooms of the house;

17. What is the type of the house

1. Ordinary
2. Detached
3. Villa
4. Foundation only
5. Service quarter

18. Total plot area of the land

19. Type of walling material of the house;

1. Wood and mud
2. stone and Chika
3. hollow blocks
4. Bricks
5. Stone and cement

20. Type of flooring material of the house

1. Earth
2. Cement
3. Wood.
4. Plastic
5. Other (specify) _____

21. How much time it takes to get a public transport or taxi?

1. Less than 10 minutes
2. 10 to 20 minutes
3. Greater than 10 minutes

22. How much time it takes to reach market or Gulet ?

1. Less than 10 minutes
2. 10 to 20 minutes
3. Greater than 10 minutes

23. How much time it takes to the nearest elementary school?

1. Less than 10 minutes
2. 10 to 20 minutes
3. Greater than 10 minutes

24. What is the advantage you gain by purchasing this house;

- 1 Land
- 2 Better neighborhood
- 3 Better infrastructure services
- 4 Security of tenure right
- 5 Cheaper price of a house

25. Do you improve the house you purchase?

1. Yes
2. No

26. If the answer is yes for question 23 how much you spend;

27. How do you estimate the current estimate price of the house?

28. In your opinion which component the property you pay higher price;

1. Land
2. House

29. In what purpose the house you bought is devoted;

1. Residential without improvement
2. Residential with full improvement
3. Business
4. Rental purpose
5. For sell

III. Condition of house market

30. How many uses you visited before buying this house?

1. Less than three houses
2. 4- 6 houses
3. 7-10 houses
4. Greater than 10 houses

31. How much time it takes you to buy a house;

1. One month
2. 2-3 months
3. 3- 6 months
4. 7 – 12 months
- 5 more than one year

32. What means you used in the purchasing process of the house

1. Negotiation
2. Auction
3. Other (specify) _____

33. How do you buy the house?

1. With the help of broker
- 2 By family contact
- 3 Advertisement
- 4 Auction

34. Do brokers provide you information about the house;

1. Yes
2. No

35. If brokers assisted you the purchase of a house that type of information they provided?

1. House price local
2. Land price
3. Both

36. Do the existence of brokers assist house market?

2. Yes
3. No

37. If your answers are 2 that kind of mechanism you propose

- 1.By company
2. Government sponsored sells
3. Advertisements
4. Other (specify) _____

38. How long it take to transfer the house and title deed?

1. Less than one month
2. one to three months
3. Four to six months
4. greater than six months

39. Do the market for a house is easier and the process simple?

1. No
2. Yes

40. If the answer is (1) what is the main problem?

1. Difficulty of finding buyer and seller
2. Difficult of finding a house with greater quantity and quality
3. Financial capacity
4. Absence of appropriate government regulations
5. Absence of efficient institution both private and public

41. In your opinion that will be a solution for the problem?

1. Legalizing brokers
2. Providing efficient up to date housing information
3. Establishing efficient institution
4. Cadastre
5. Reducing transaction cost and time

42. The amount of other costs incurred in transaction process

41. Do you believe that the hosing transfer process is clear and smooth?

1. Yes
2. No

42. If your answer is (2) in your opinion what is the problem?

1. Buyer and sellers did not have information about the process
2. Duplication of work by transfer office
3. There is no clear regulation
4. There is no efficient service provision
5. Corruption
6. There is no complain handling system

43. Did you try to buy residential land by lease terms from government before buying this house?

1. Yes

2. No.

44. If the answer is no what is the reason

1. It is expensive

2. I cannot choose different location

3. It is bureaucratic

4. Lack of awareness

5. Can't be use immediately as a shelter

Annex 2 Questionnaire used in the group discussion

1. reference place for your business
2. how do you get buyers or sellers
3. working conditions of brokers
4. What is the motivating factor of selling or buying a house?
5. What is the most determinant factor of a house market?
6. Do the market of the house influenced by either a seller or a buyer?
7. How do you work in the broker business?
8. how do you share a commission?

Annex 3 group discussion participants

Name	Address	tele
Ato Regassa	Megenagna	
Ato Ayele Aschalew	Arada	
Ato Eferem Abebe	Tea room	
Ato Husen Muzemil	Jimma Bar	
Ato Gebre Zeberga	Behab Hotel	

Ato Belay Demmisse	Lem hotel
Ato Teshal getahun	Megenagna
Ato Yohanes Belay	Megengha

Annex 3 Registered numbers of people for condominium houses in Addis Ababa,

No.	Sub city	Person registered
1	Lideta	63,111
2	Kirkos	75,969
3	Bole	34,625
4	Nesasilk lafeto	38,628
5	Arada	58,963
6	Akaki kaliti	11,018
7	Addis ketema	62,113
8	Kolfe keraniyo	37,491
9	Yeka	40,124
10	Gulele	31,039
Total		453,081

Source: housing agency, 2006

Annex 4 Houses sold by the city administration in 2005.

Type of unit	Floor area	Construction price	15% down payment	Remaining balance	Final payment period (years)	Monthly payment including interest rate
3bed room						
3A	71	78,810.00	11,821.50	66,988.50	20	596.20
3B	66	73,260.00	10,989.00	62,271.00	20	554.21
2bed room						
2A	53	58,830.00	8,824.50	50,005.50	20	445.05
2B	51	56,610.00	8,491.50	48,118.50	20	438.25
2C	47	52,170.00	7,825.50	44,344.50	20	394.67
2D	41	45,510.00	6,826.50	38,683.50	20	344.28
1bed room						
1A	45	49,950.00	7,429.50	42,457.50	20	377.87
1B	42	46,620.00	6,993.00	39,627.00	20	352.68
1C	36	39,960.00	5,994.00	33,966.00	20	302.30
Studio						
0A	25	27,750.00	4,162.50	23,587.50	20	209.93
0B	20	22,200.00	3,330.00	18,870.00	20	167.94

Source: city Administration of Addis Ababa Housing Agency, 2006