

Hamza GÜLTER

M.A. Thesis in Management

January – 2013

# HOUSING FINANCE SYSTEMS: APPLICATIONS IN DEVELOPED COUNTRIES AND TURKEY

Thesis submitted to the  
Institute of Social Sciences  
in partial fulfillment of the requirements

for the degree of

Master of Arts

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Management

by

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To my mother and father...

## APPROVAL PAGE

**Student** : Hamza GÜLTER  
**Institute** : Institute of Social Sciences  
**Department** : Management  
**Thesis Subject** : Housing Finance Systems: Applications in  
Developed Countries and Turkey  
**Thesis Date** : January 2013

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Arts.

Assoc. Prof. Nizamettin BAYYURT  
**Head of Department**

This is to certify that I have read this thesis and that in my opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts.

Assoc. Prof. Eyup BASTI  
**Supervisor**

### Examining Committee Members

Assoc. Prof. Eyup BASTI .....

Assoc. Prof. Ahmet AKIN .....

Assist. Prof. Mustafa ÖZTÜRK .....

It is approved that this thesis has been written in compliance with the formatting rules laid down by the Graduate Institute of Social Sciences.

Assoc. Prof. Mehmet KARAKUYU  
**Director**

## AUTHOR DECLARATIONS

1. The material included in this thesis has not been submitted wholly or in part for any academic award or qualification other than that for which it is now submitted.

2. The program of advanced study of which this thesis is part has consisted of:

- i) Research Methods course during the undergraduate study
- ii) Examination of several thesis guides of particular universities both in Turkey and abroad as well as a professional book on this subject.

Hamza GÜLTER

January, 2013

## ABSTRACT

Hamza GÜLTER

January 2013

### Housing Finance Systems: Applications in Developed Countries and Turkey

Housing is one of the most important requirements of human beings and has a great importance for individuals and countries socially and economically. It is also a valuable and important wealth that can be used by its owners as a current or future asset. Because of its value and cost, additional funds are required to obtain a housing unit. Therefore, in order to provide necessary funds, many countries have established their own housing finance structures. Housing finance systems vary among countries, as well as within countries, and there are differences in application. Based on this, housing finance systems and applications of these systems by different paths in developed countries and Turkey examined in this study. Furthermore, institutional development and housing activities of Housing Development Administration of Turkey (HDAT) and İstanbul Public Housing Corporation (KIPTAS) are examined in detail. HDAT and KIPTAS are mass housing providers and they also have different kinds of housing projects to meet the immediate housing requirements of all households in Turkey.

**Keywords:** Housing, Housing Finance, Housing Development Administration of Turkey (HDAT), KIPTAS, Mass Housing

## KISA ÖZET

Hamza GÜLTER

Ocak 2013

### Konut Finansman Sistemleri: Gelişmiş Ülkeler ve Türkiye Uygulamaları

İnsanoğlunun en önemli ihtiyaçlarından biri olan konut, bireyler ve ülkeler açısından sosyal ve ekonomik olarak çok büyük öneme sahiptir. Ayrıca, değerli ve önemli bir zenginlik olduğu için, konut, sahipleri tarafından şu an ve gelecekte kullanılabilir bir servettir. Değeri ve maliyeti yüksek olduğundan, konut edinimi için ilave sermayeye ihtiyaç duyulmaktadır. Bu yüzden, gerekli olan sermayeyi sağlamak amacıyla, ülkelerin birçoğu kendi konut finansman sistemlerini kurmuşlardır. Konut finansman sistemleri ülkeler arasında, aynı zamanda ülke içerisinde farklılık göstermekte olup, farklı uygulama yöntemlerine sahiptirler. Bu nedenle, bu çalışmada, konut edinimi için gerekli olan finansman yöntemleri ve bu yöntemlerin gelişmiş ülkeler ve Türkiye'deki uygulamaları anlatılmaktadır. Ayrıca, Toplu Konut İdaresi Başkanlığı (TOKİ) ve Konut İmar Plan Sanayi ve Ticaret A.Ş. (KİPTAŞ)'ın kurumsal gelişimi ve konut faaliyetleri çalışmada detaylı bir şekilde çalışılmıştır. TOKİ ve KİPTAŞ toplu konut üreticisidirler ve birçok farklı konut projesiyle Türkiye'deki bütün hane halklarının konut ihtiyaçlarını karşılamaya çalışmaktadırlar.

**Anahtar Kelimeler:** Konut, Konut Finansmanı, Toplu Konut İdaresi Başkanlığı (TOKİ), KİPTAŞ, Toplu Konut



## LIST OF CONTENTS

Dedication Page .....	iii
Approval Page .....	iv
Author Declarations .....	v
Abstract .....	vi
Kısa Özet .....	vii
List of Contents.....	viii
List of Tables .....	xi
List of Figures .....	xii
List of Abbreviations .....	xiii
Acknowledgements .....	xiv
CHAPTER 1.....	1
HOUSING FINANCE .....	1
1.1. SOURCES OF HOUSING FINANCE .....	3
1.1.1. NON-INSTITUTIONAL HOUSING FINANCE .....	5
1.1.2. INSTITUTIONAL HOUSING FINANCE .....	5
1.2. HOUSING FINANCE SYSTEMS .....	9
1.2.1. THE DIRECT ROUTE.....	11
1.2.2. THE CONTRACTUAL ROUTE.....	12
1.2.3. THE DEPOSIT FINANCE ROUTE: .....	13
1.2.4. MORTGAGE BANK ROUTE:.....	13
1.3. MORTGAGE SYSTEM.....	15
1.3.1 MORTGAGE MARKETS & SECURITAZION OF MORTGAGES... 15	
1.3.2. RISKS INVOLVED IN MORTGAGES:.....	17
CHAPTER 2.....	20

HOUSING FINANCE APPLICATIONS IN SOME DEVELOPED COUNTRIES .....	20
2.1. UNITED STATES .....	20
2.1.1. Federal Housing Administration (FHA) .....	23
2.1.2. Veterans Administration (VA) .....	24
2.1.3. Federal National Mortgage Association (FNMA–Fannie Mae)...	24
2.1.4. Government National Mortgage Association (GNMA–Ginnie Mae) .....	26
2.1.5. Federal Home Loan Mortgage Corporation (Freddie Mac–FHLMC) .....	28
2.1.6. Causes of 2008 Mortgage Crisis .....	33
2.2. GERMANY.....	42
2.3. ENGLAND .....	46
CHAPTER 3.....	55
HOUSING FINANCE APPLICATIONS IN TURKEY.....	55
3.1. Historical Development of Housing Finance Sector of Turkey ...	56
3.2. Non–Institutional Structure of Turkish Housing Finance System.	60
3.2.1. Build–Sell Contractors (Yap–sat) .....	61
3.2.2. Building Cooperatives .....	62
3.2.3. Shanty Houses (Gecekondu).....	63
3.3. INSTITUTIONAL STRUCTURE OF TURKISH HOUSING FINANCE SYSTEM.....	65
3.3.1. REAL ESTATE BANK .....	65
3.3.2. SOCIAL SECURITY ORGANIZATIONS.....	68
3.3.3. COMMERCIAL BANKS.....	69
3.3.4. REAL ESTATE INVESTMENT TRUSTS (REITs).....	73

3.3.5. LEGAL FRAMEWORK OF MORTGAGE SYSTEM IN TURKEY ..	80
3.3.5. THE CASE STUDIES.....	86
A-HOUSING DEVELOPMENT ADMINISTRATION OF TURKEY (HDAT) .....	86
A.1. Housing Activities and Projects of HDAT .....	92
A.2. Partnerships of HDAT .....	109
B- ISTANBUL PUBLIC HOUSING CORPORATION (KIPTAS).....	121
B.1. Housing Activities and Projects of KIPTAS .....	124
CONCLUSION .....	131
BIBLIOGRAPHY.....	144

## LIST OF TABLES

- Table 1: Annual interest rates in United States between 2001– 2010
- Table 2: Real House Prices Changes in England: 1959 to 2009
- Table 3: UK dwelling stock by tenure (%)
- Table 4: Population Growth in Turkey
- Table 5: Cumulative Housing Requirement of Turkey: 2007–2010
- Table 6: Resources that are used to Purchase Houses in Turkey (1999)
- Table 7: Total Amount and the Ratio of Housing Credit Supplied by Commercial Banks
- Table 8: List and Capital of REITs in Turkey
- Table 9: Housing Projects of HDAT in 81 provinces of Turkey from 2003 onwards
- Table 10: Number of Annual Renovation Projects and Loan Amounts
- Table 11: Transferred Lands to HDAT without Charge since 12.12.2003
- Table 12: Non-residential investments of HDAT (until 2011)
- Table 13: Number of Completed and Continuing Housing Projects by Emlak Konut REIT
- Table 14: Housing Projects of KIPTAS in Istanbul
- Table 15: Payment Plan for 222m<sup>2</sup> and 254 m<sup>2</sup> Dwelling units in Green Valley Mansions

## LIST OF FIGURES

- Figure 1: Sources of Housing Finance
- Figure 2: Housing Finance Systems
- Figure 3: Mortgage Bank Route
- Figure 4: Housing Finance Structure of the U.S.
- Figure 5: Cash Flow Schedule of Ginnie Mae Guaranteed Securities
- Figure 6: Mortgage Interest Rates in the U.S.:1973 to 2007
- Figure 7: Home Ownership Rates for the U.S.: 1995 to 2011
- Figure 8: The Volume of the Issued MBS between 2001 and 2006
- Figure 9: Pfandbrief System
- Figure 10: Homeownership Rates in the UK: 1950 to 1990
- Figure 11: Structure of Housing Finance in the UK
- Figure 12: Homeownership rates of England
- Figure 13: General structure of Real Estate Bank's mortgage lending system
- Figure 14: The New Turkish Mortgage Structure
- Figure 15: The Process of Housing Production of HDAT for the Low & Middle Income People
- Figure 16: The Process of Renovation of Squatter Areas/Urban Renewal
- Figure 17: The Process of Resource Development Projects of HDAT based on Revenue Sharing Model
- Figure 18: Emlak Konut REIT Revenue Sharing Projects Flow
- Figure 19: Key Differences between the Revenue Sharing Model and the Public Procurement Model
- Figure 20: Population of Istanbul after 1950
- Figure 21: Housing areas of KIPTAS in Istanbul

## LIST OF ABBREVIATION

AKP	: Justice and Development Party
BAG-KUR	: Social Insurance Institution for Tradesmen and Craftsmen and Other Self Employed
BRSA	: Banking Regulation and Supervision Agency
CMB	: Capital Market Board
Fannie Mae	: Federal National Mortgage Association
FHA	: Federal Housing Administration
FHMLC	: Federal Home Mortgage Loan Corporation
FNMA	: Federal National Mortgage Association
Freddie Mac	: Federal Home Mortgage Loan Corporation
Ginnie Mae	: Government National Mortgage Association
GNMA	: Government National Mortgage Association
REIT	: Real Estate Investment Trust
SSI	: Social Security Institutions
VA	: Veteran Administration
HDAT	: Housing Development Administration of Turkey
TOKI	: Toplu Konut idaresi Başkanlığı
KIPTAS	: İstanbul Konut İmar Plan Sanayi ve Ticaret A.Ş.

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## CHAPTER 1

### HOUSING FINANCE

Housing is one of the most important requirements of human beings and it has a great importance for households and countries economically. It is also a valuable and important wealth that can be used by its owners as a current or future asset (King, 2009). Because of its high value and cost, a large part of the world's population cannot have afforded to buy their own houses without additional funds (Warnock & Warnock, 2008). Therefore, in order to provide necessary funds to lower income households, many countries have established their own housing finance structures (Leece, 2004).

Housing finance systems vary among countries, as well as within countries, and there are differences in application (Warnock & Warnock, 2008). This variety presents more options for credit lenders and borrowers (Leece, 2004). Leece (2004) and Baloglu (2007) introduced some of the reasons of different applications among and within countries in their studies as follows; housing stock and history, financial market, level of financial depth, economic conditions and economic stabilization, banking sector and insurance sector, laws and legal systems, tax laws, preferences of people, culture and social structure and so forth.

Importance of the housing sector and housing demand increased because of rapid population growth, economic growth, division of extended families into nuclear families, cultural changes and remarkable changes in construction technology according to Datta and



Jones (1999). Therefore, housing production has gained importance due to increasing demand for dwellings. According to Renaud (1984), three main factors should come together for housing production; available land for housing, construction materials and financing. Among these, high cost of construction materials and insufficient land or inappropriate land use can be problems for housing production. On the other hand, Lea (2000) emphasizes the importance of financing in housing production and argues that high amount of funds and long-term financing is required for housing investment.

Boleat (1985), Lea (2000) and King (2009) emphasized that housing finance system aims to provide funds by public and private institutions to customers who want to buy a house and to organizations that realize large housing projects as much as possible, because many households and organizations do not have sufficient funds for housing. There are many methods to achieve this goal. Lea (2000) claimed that the most important point was bringing together those who need to borrow funds with those who supply funds. According to Renaud (1984), Boleat (1985) and Leece (2004), this is possible only with an efficient housing finance system and such a system provides benefits to all parties involved such as capital, housing and labour markets. Efficient housing finance system is expected to increase the supply and accessibility of funds in accordance with customers' desire. It allows suppliers to sell houses with more affordable prices and develop more qualified housing projects. And it is viewed as the capacity to meet both the needs of investors and borrowers.

In order to satisfy expectations of borrowers and lenders, there must be balanced institutional arrangements among government, financial institutions, house producers, insurance companies and households that can be accomplished with efficient housing finance markets (Demir, Kurt, & Cagdas, 2003 and Komurlu & Onel, 2007).

Housing finance system creates positive effects to the social life by helping construction, finance sectors and other sectors which are connected to those two. It also develops the economy and planned urbanization from the aspects of introducing new investment instruments and avoiding illegal constructions (Ozturk & Dogan, 2010).

## **1.1. SOURCES OF HOUSING FINANCE**

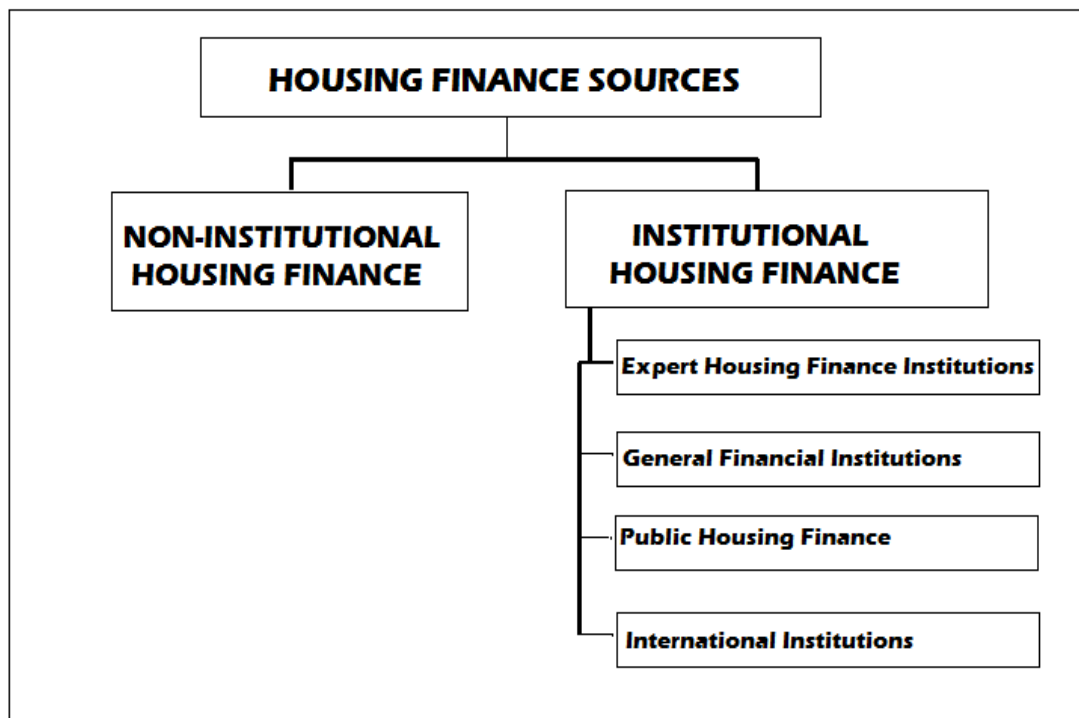
Most important sources of housing finance are individuals' savings and other savings provided through banks, insurance companies and pension funds and so forth (Boleat, 1985 and King, 2009). Different systems and methods are used to obtain necessary funds for housing in developed and developing countries (Leece, 2004).

Developed countries have well-structured housing finance sectors that have been built upon private sector institutions and capital market instruments (Baloglu, 2007). Housing finance institutions in developed countries finance their activities with the funds from deposits and capital market instruments issued (Yilmaz, 2000; Hepsen, 2008). Therefore, financial institutions meet housing finance

requirements of their customers from long-term sources in developed countries (Lea, 2000).

Housing conditions are poor in developing countries and developing countries do not have enough financial intermediaries that provide necessary sources to housing sector (Renaud, 1984). Developing countries use tradition-based, non-institutional housing finance sources such as personal savings, support from extended families, loan from friends or relatives, credits from contractors and housing cooperatives (Alp et al. 2000; Baloglu, 2007). Housing finance sources are examined under two main categories, the non-institutional and institutional resources.

Figure 1: Sources of Housing Finance



Source: (Hepsen, Gayrimenkul Piyasaları ve Finansmanı: Türkiye'de Gayrimenkul Finansman Piyasalarının Gelişimi, 2010)

### 1.1.1. NON-INSTITUTIONAL HOUSING FINANCE

Non-institutional housing finance sector is a system in which there are no any rules and regulations governing to housing activities. Therefore, there are no exact statistics, no official records and no legal regulations in this sector (Demir et al. 2003). Non-institutional housing finance systems are used commonly in undeveloped or developing countries (Datta & Jones, 1999). One of the main problems of these countries is the lack of well-structured finance system that regulates housing activities and financial institutions which provide long-term funds (Berberoglu & Teker, 2005).

Non-institutional sources of housing finance are classified as follows:

- ✓ Personal savings of households
- ✓ Funds from families, friends or relatives
- ✓ Funds from the employer or a colleague
- ✓ Funds by selling existing assets (gold, silver)
- ✓ Inheritances (Alp & Yilmaz, 1999).

After obtaining funds from those sources, people usually apply to housing cooperatives and building contractors in non-institutional housing method (Hepsen, 2010).

### 1.1.2. INSTITUTIONAL HOUSING FINANCE

In institutional housing finance system, formal financial institutions provide funds for housing sector that are approved by public authorities and are operating based on rules and regulations

(Lea, 2000). These institutions are mostly located in developed countries because they have well-arranged primary and secondary housing markets (Hepsen, 2010).

Renaud (1984) determined important factors for the effective operation of this system as income level and educational status of persons, interest rates, demographic characteristics and social relations in society.

Institutional housing finance system provides large volume of credits in long term through financial institutions to build dwellings (Warnock & Warnock, 2008). Institutional housing finance sources can be classified as follows (Hepsen, 2010):

1. Specialist Housing Finance Institutions
2. General Financial Institutions
3. Public Housing Finance
4. International Resources (Hepsen, 2010).

Hepsen (2010) divided expert housing finance institutions into three categories in his study: institutions established by public banks and companies, private sector financial companies and mortgage banks, savings banks and housing companies.

Institutions established by public banks and companies obtain large amount of their funds from government's allocations and taxes. In addition, they may borrow housing funds from capital markets by gathering private and corporate deposits (Alp & Yilmaz, 2000).

Private sector financial institutions also receive financial help from the government but their help ratio is significantly lower than public corporations' help ratio. Their funds mostly come from deposits and issued mortgage-backed securities. The creation of mortgage backed securities solves maturity mismatch problems among housing finance institutions. Private sector financial institutions have different applications depending on country of operation (Hepsen, 2010).

Mortgage banks, savings banks and housing companies allocate mortgage loans to residential customers as long-term financing. Credit terms vary according to the type of mortgage loan and the maturity choice is between 15-30 years. These institutions finance loans with collected deposits or securitization of mortgage loans (Alp & Yilmaz, 2000).

General financial institutions that finance housing include commercial banks, insurance companies and pension funds (Hepsen, 2010). The commercial banks, who are not engaged in housing finance basically, have relatively low volume of mortgage loans because of long maturity of mortgage loans. They mostly collect short-term deposits and extend them as short-term loans. In some cases, commercial banks give short-term construction loans or housing development credits but still their long-term mortgage loan volume is very low (Komurlu, 2006).

Insurance companies, normally, are providing funds indirectly to real estate industry. However, in some countries they are obliged to provide housing funds to real estate industry because it has been made

compulsory by legislation. These companies provide housing finance with certain criteria and conditions; arrange funds by purchasing mortgage loans or issued mortgage based securities and have real estate assets in their portfolios (Alp & Yilmaz, 2000).

Pension funds have large funds and they can transfer long term funds to real estate sector in order to assist development of institutional investors and deepening of capital markets. In developed countries, although it is not statutory, insurance companies and pension funds invest in mortgages and mortgage backed securities because of their high return on investment (Alp & Yilmaz, 2000).

Governments take place in real estate financing to support housing sector because it is very important to become a homeowner for the middle and lower level income groups (Hepsen, 2010). Public housing finance may take place as direct funds transfers to public housing and publicly-built housing projects. Also, public housing finance may take place as indirect funds transfers through public support and incentives (Demir & Palabiyik, 2005). In developed countries, direct interventions are very low and developed countries often reference indirect ways to intervene. Governments intervene in housing sector in four different ways in developing countries like financial regulations, financial aid, loans and mortgages and direct investments (Komurlu, 2006).

International institutions provide technical and financial support for housing and housing finance. Especially, in developing countries, the United Nations (UN), the World Bank and International Finance

Corporation are institutions which supply funding for real estate sector. However, these institutions have exact rules and often give housing funds under certain circumstances. Additionally, international sources are provided through foreign banks and funds are raised from international financial markets by selling securities (Komurlu, 2006).

## 1.2. HOUSING FINANCE SYSTEMS

Housing finance systems have been developed to meet expectations of borrowers and lenders (Lea, 2000). As it was mentioned before, personal savings or incomes that owned by households may not be enough to buy a house (King, 2009). For this reason, many various financing systems have been developed by governments, private entities and individuals for the purpose of enabling people to acquire housing. Housing finance systems should provide return to the parties who propound funds over their serviced funds. Otherwise, it should present credit terms, which enable the indebted to pay for their debts, to the indebted people (Leece, 2004).

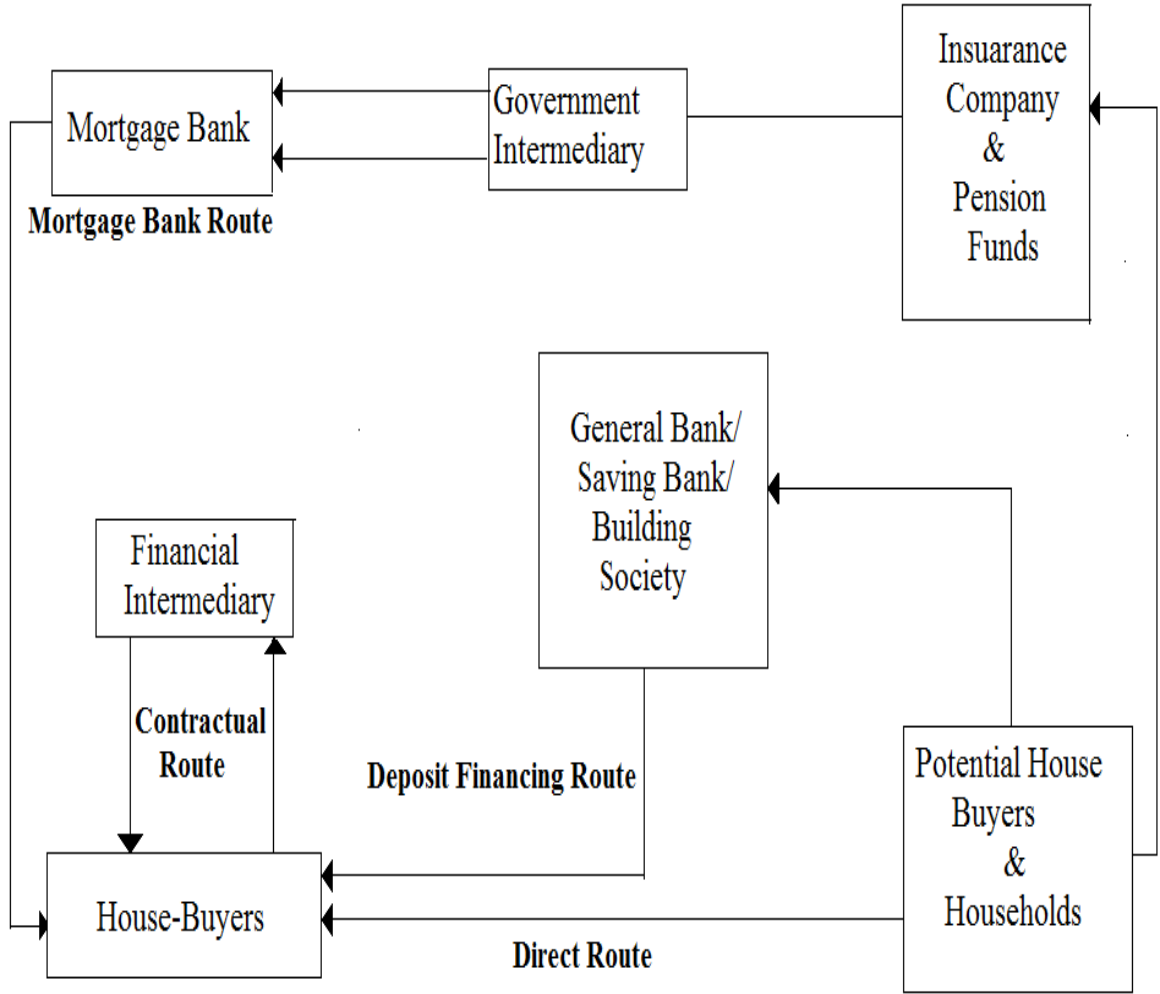
Each country has a different housing finance system. While banking sector is the leading fund provider in some countries, expert housing finance enterprises can be much more important in some other countries (Komurlu, 2006). In general, there are four types of housing finance systems. These are;

1. The Direct Route
2. The Contractual Route
3. The Deposit Financing Route



4. The Mortgage Bank Route (Boleat, 1985)

Figure 2: Housing Finance Systems



Source: Boleat, M. (1985). *National Housing Finance Systems: A Comparative Study*. London: Croom Helm & Hepsen, A. (2010). *Gayrimenkul Piyasaları ve Finansmanı: Türkiye'de Gayrimenkul Finansman Piyasalarının Gelişimi*. İstanbul: Literatür Yayınları.

As it is seen in the model, while it is not required to have an agent in the methods of the Direct Route and The Contractual Route,

an agent is required in the methods of The Deposit Financing Route and The Mortgage Bank Route (Boleat, 1985).

### 1.2.1. THE DIRECT ROUTE

Several studies defined the direct route system which is used by individuals who do not have sufficient fund savings and finance their needs from their friends, relatives or personal and business environment (Boleat 1985; Lea 2000; Kilic 2007; Hepsen 2010). Financial institutions do not exist in this finance system. In direct method, there is a trust relationship between savers and borrowers. Although this system is currently used in the developed countries, it is mostly used in the developing or underdeveloped economies where money and capital markets do not work effectively (Boleat 1985; Datta et al. 1999; Gurbuz 2002; Kilic 2007). This method has been used widely in Turkey, because family elders help young people to become a homeowner, and also individuals can provide funds through their personal relationships easily (Hepsen, 2010).

Generally, this method has been applied to make the first necessary down payment to buy a house (Boleat, 1985), and funds are provided directly from fund owners (Datta & Jones, 1999).

According to Boleat (1985) and Lea (2000) for the effectiveness of fund usage, this method is very inefficient. If the funds for the housing finance are scarce, this method is a system that can be used limitedly as well.

### 1.2.2. THE CONTRACTUAL ROUTE

In contractual route, depositors invest their funds to a specialized agency; during the investment period, they get interest rate below the market fixed rate of interest (Boleat 1985; Lea 2000; Kilic 2007). Then, depositors pay lower interest rate than current interest rate for the credits they take when they are entitled to take out the credit to buy a house (Boleat, 1985). In other words, the account owners who are newly included in the system provide funds for certain periods with the costs below current interest rates to the account owners who have already been included in the system formerly. The success and the continuation of this system are up to the participation of the newcomers regularly (Komurlu, 2006).

Generally, the quantity of the credit provided from this method cannot afford for the price of the house completely, perhaps it may meet %40 of the purchase price. It is a mechanism that is supported by other financing methods as well (Boleat, 1985). Lea (2000) emphasized that contractual method has been used effectively in the countries which has economic stabilization or where the inflation is low. This method is used by building savings in Germany, France and Austria.

In Turkey, some practices like the contractual route have been applied. Turkey Real Estate Bank which opened saving accounts to the people who wanted to purchase housing can be given as an example to this kind of practices (Kilic 2007; Hepsen 2010).

### 1.2.3. THE DEPOSIT FINANCE ROUTE:

Deposit finance route is the most frequently used financing method (Boleat, 1985). Because the deposit finance route covers most of the methods of housing finance system. This method relies on the principle that financial institutions collect deposits from the market and give all or some part of their gathered deposits to the ones who do not have sufficient accumulation to get housing (Boleat 1985; Kilic 2007).

In this method, financial institutions present all or some part of deposits and supply housing loan at a rate below current market interest rates. These institutions are commercial banks, saving banks, saving and loan associations, pension funds and building societies, which have right to collect deposits (Lea, 2000).

The deposit finance route is effectively practiced in many developed countries. However, it is not used effectively in undeveloped or developing countries because they do not have housing finance institutions which afford for long term fixed-interest rate housing loans (Boleat, 1985).

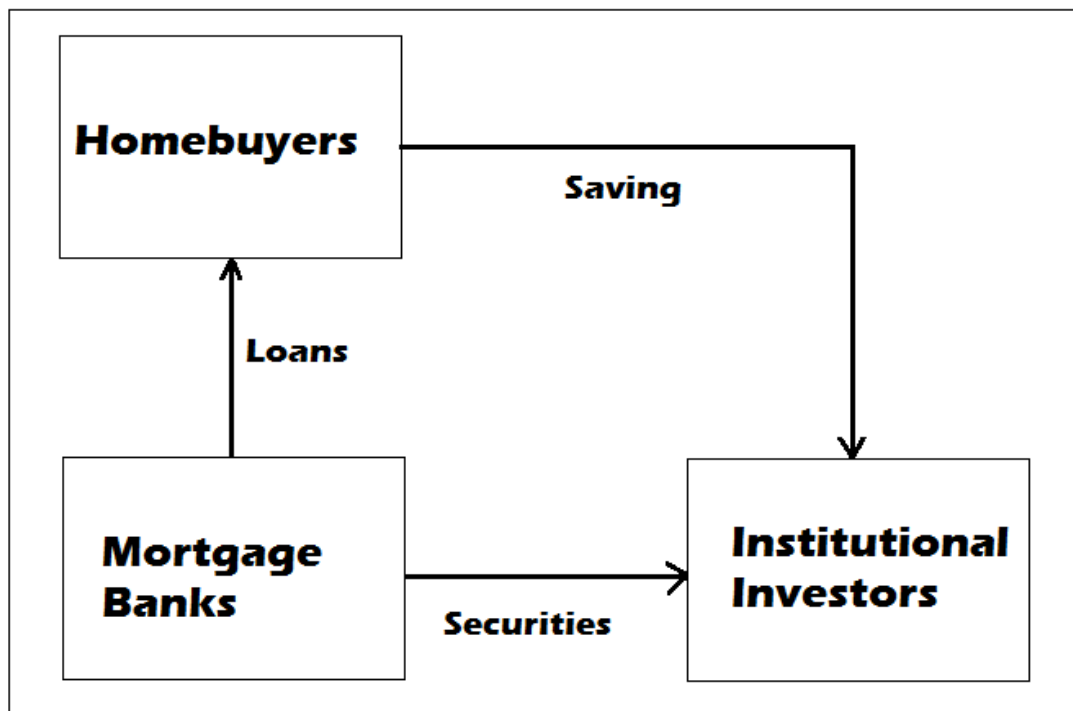
### 1.2.4. MORTGAGE BANK ROUTE:

The mortgage bank model has been applied effectively in Europe and U.S. over 100 years. In this method, funds are obtained from private institutional intermediaries (Lea, 2000).

The mortgage bank route is shown in Figure 3. Mortgage banks originate, purchase and sell mortgage loans. These banks gather all

originated mortgage loans in one pool. And in order to obtain funds, they can keep or sell these loans through the secondary mortgage market (Komurlu 2006; Hepsen 2010).

Figure 3: Mortgage Bank Route



Source: Lea, M. J. (2000), *International Housing Finance: Sourcebook 2000*. Countrywide International Consulting Services.

The principal of mortgage system based on hypothec is to form a hypothec on the real estate to secure the repayment of the loan (Komurlu, 2006). The main purpose of the system, which can show some differences in accordance with the economic and social status of the countries, is to provide long term fixed interest rate housing loans to homebuyers (Lea, 2000; Yilmaz, 2000).

According to Boleat (1985) and Komurlu (2006) the effectiveness of this method depends on the existence of a developed and deepened bond market. As the securities issued by the public have the tax privileges, the bond market of the private sector has been blocked. The mortgage system is a financing system for completed houses. For this reason, the mortgage banks provide finance to those who are planning to buy existing or newly finished houses, but do not provide financing to new housing projects (Komurlu, 2006).

### **1.3. MORTGAGE SYSTEM**

#### **1.3.1 MORTGAGE MARKETS & SECURITAZION OF MORTGAGES**

Mortgage system consists of primary and secondary markets transactions. Banks or other financial institutions are parts of primary markets and they may provide mortgage loans to customers who are interested in buying houses on credit (Fabarozzi, 2006).

In primary market, housing customer should find a house to buy and then apply to financial institutions to take mortgage loan. Financial institution makes some research about customers' credit rating in order to determine if the customer is eligible for housing credit. If the person who asked for a mortgage credit is eligible, financial institution approves credit application and assigns an authorized expert. Then, the approximate value of the housing unit is determined and reported by the authorised expert. After the report of the authorized expert, financial institution finances purchase of housing. However, customer should make about 25% down payment of sales price of the housing unit and financial institution pays the remaining amount. That person

makes monthly payments in long-term to the financial institution until the mortgage loan is fully repaid (Hepsen, 2010).

The volume of loans used in primary markets has been increasing in the Europe and U.S. The total volume of housing loans reached 50 percent of the national income in Europe and the U.S. housing loan market volume was over 11 trillion dollars at the end of 2008 (Hepsen, 2010). Later, the volume of housing market of the U.S. increased to 16,7 trillion dollars at the end of 2011 (<http://www.hofinet.org/countries/description.aspx?regionID=6&id=175>)

Mortgage loans are extended by financial enterprises in the primary market and these loans are purchased by mortgage firms or other investors in the secondary markets through issuance of mortgage backed securities (Demir & Palabiyik, 2005). Secondary mortgage market increases liquidity and enables market development (Leece, 2004).

Mortgage banking companies sell their existing mortgages in the secondary markets to the financial associations or other investors in order to supply new funds for housing credits, facilitate the flow of funds and increase investment options of investors (Komurlu, 2006). Efficiency of secondary market depends on the well-structured primary market (Leece, 2004).

Securitization is collecting illiquid assets into mortgage pool and presenting as collateral for third party investment by trustees. It is applied when there is a liquidity problem (Gaschler, 2010). In other

words, securitization converts illiquid assets into liquid assets. The main purpose of securitization is to maximize cash flow and reduce risk for debt originators (Gaschler, 2010, p. 667). Securitization of mortgages enables the integration of mortgage markets with other capital markets. Moreover, it decreases rationing, which reduces mortgage loans for mortgage borrowers, in mortgage loans (Leece, 2004). Securities issued as a result of securitization is referred to as mortgage backed securities (Dogru , 2007).

Securitization was initially used by the United States Government National Mortgage Association (GNMA or Ginnie Mae) in 1970 (Gaschler, 2010). After that, the importance of securitization has been increasing in housing finance systems (Leece, 2004). Securitization may be explained as follows: First, originators such as commercial banks or financial institutions originate housing loans for households. Second, aggregators (private wholesale firms between lenders and mortgage brokers) buy loans from originators and collect those loans into mortgage pool to issue mortgage backed securities. Third, aggregators sell the pooled loans to commercial or investment banks. These banks sell issued securities to investors. Mortgage backed securities have government or private payment guarantees so they are regarded as safe investment instruments for investors (Gaschler, 2010).

### **1.3.2. RISKS INVOLVED IN MORTGAGES:**

There are five kinds of risks in the mortgage system (Hepsen, 2010):



- Prepayment Risk,
- Interest Rate Risk,
- Default Risk (Credit Risk),
- Liquidity Risk,
- Purchasing Power Risk (Hepsen, 2010)

For all extended mortgage credits the common risk is the prepayment risk. Those who have been granted mortgage credit has the right to pay more than their due before the redemption date of the loan. The prepayment risk is the risk that appears when the mortgage obligors want to pay for their loan completely or partly in advance. This situation can create uncertainty in cash flow, too. Prepayment risk is low from the credit grantor institution's aspect when current market interest rate is high. If the interest rate decreases, it is highly possible that the obligor will prefer to finance his existing mortgage credit at a lower rate. This risk increases when the current market interest rate decreases (Leece, 2004; Fabarozzi, 2006).

Interest rate risk is a type of risk that stems from current market interest rate changes. If interest rates rise after a financial institution has extended a fixed-interest rate mortgage loan, the institution will experience a loss due to depositing its money with a low yield. In the case of the decrease in the interest rate, value of the mortgage credit will increase. As the mortgage credit is a long term investment, in this case, the investor will face with higher interest rate risk (Hepsen, 2010). Most financial institutions hedge their interest rate risk through underwriting. Underwriting is the process of insuring losses from interest rate changes and therefore losses are paid by the

insurance company. Terms of insurance are specified in the contract beforehand (Hepsen, 2010).

Credit or default risk is the possibility that the parties who buy houses through mortgage loans will not repay their loan at all or partly to the credit grantor institution due to various reasons (Hepsen, 2010).

Liquidity risk is known as not to be able to convert real estate investments into cash, waiting for too long to convert into cash or converting into cash with a price below the current market value (Hepsen, 2010). Generally, this risk is measured with the buying and selling price differences of the mortgage credits (Komurlu, 2006).

The purchasing power risk is the instability in the purchasing power of the cash flow of investment instruments in the future. As the mortgage credits are long term, this risk is important because of inflation. The purchasing power risk can be decreased with the floating-rate mortgage credits, which have been developed as an alternative to fixed-interest mortgage credits (Hepsen, 2005).

## CHAPTER 2

### HOUSING FINANCE APPLICATIONS IN SOME DEVELOPED COUNTRIES

Housing finance systems are viewed to be very important by developed countries for the development of real estate sector and other sectors connected to the real estate sector. Therefore, alternative investment instruments have been developed to contribute to the deepening of the current housing market (Warnock & Warnock, 2008). Many countries apply some kind of housing system special to themselves and they make many researches to help the system work effectively. In this part of the study, housing finance systems of U.S., England and Germany will be reviewed.

#### 2.1. UNITED STATES

United States (U.S.) has a very complicated housing finance market in terms of the primary and secondary markets (Boleat, 1985). Although, most of the developed and developing countries have their own housing finance system according to their housing conditions, the model basically reflects the features of the U.S. system (Alp & Yilmaz, 1999).

U.S. housing finance system is one of the oldest in the world that has started with informal arrangement in 19th century and developed with formal ways over time (Colton, 2002). In 1916, the Federal Administration Bank and the Federal Home Loan Bank had

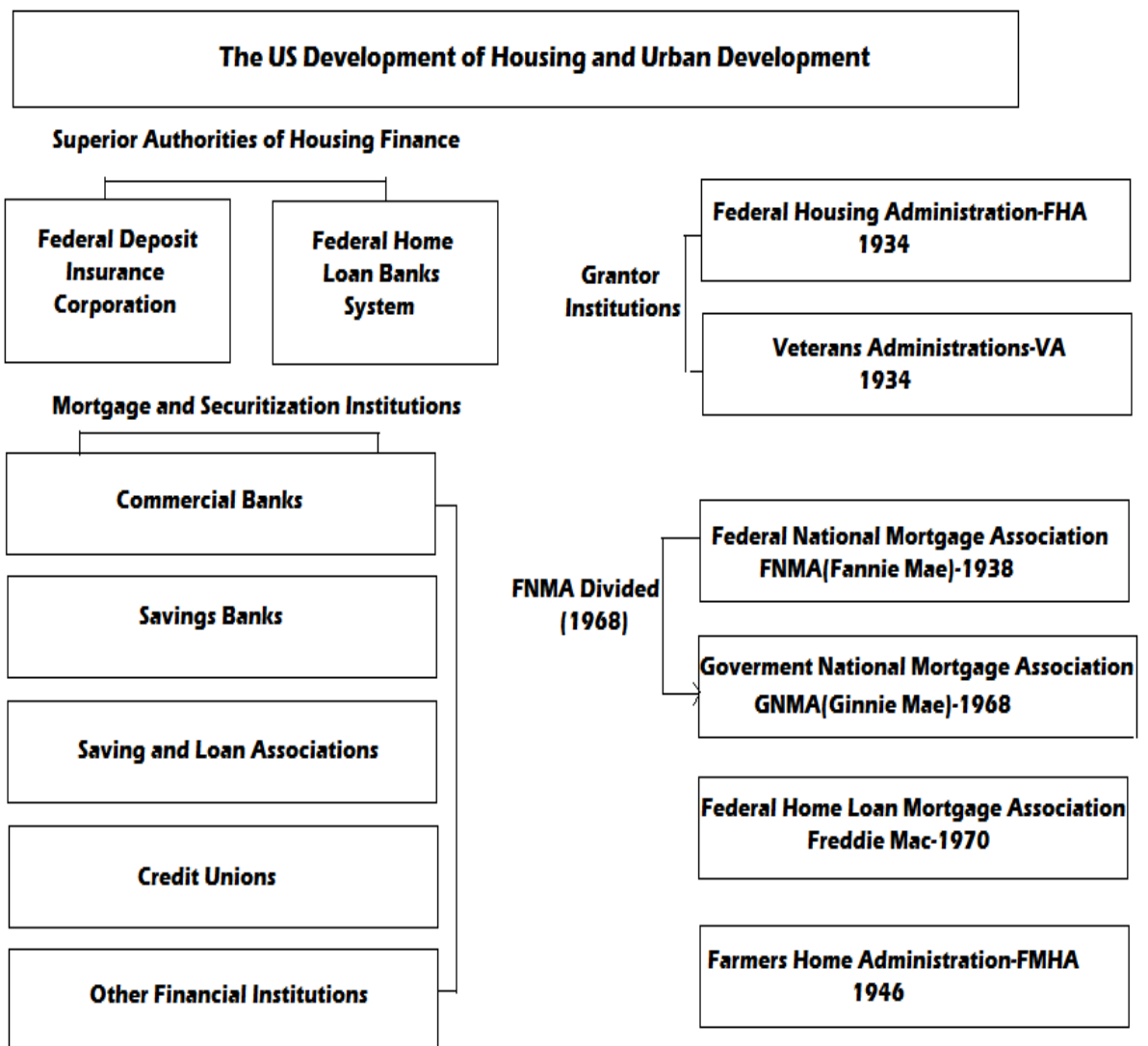
been established in the U.S. (Courchane & Giles, 2001; Green&Wachter, 2005). Before the Great Economic Depression (1929) in the U.S., housing finance institutions were composed of four groups; commercial banks, savings and loan associations, savings banks and credit unions (Colton, 2002; Gurbuz, 2002). The housing finance system had seen some innovations in the following years. The first innovation occurred after the Great Depression due to requirements of government interventions to housing finance system. Government interventions included the development of existing system and creation of new housing finance structure that was supported by public and private corporations through direct and indirect ways (Colton, 2002).

During the Roosevelt administration, government interventions had started on housing sector and several housing agencies were organized (Courchane & Giles, 2001; Colton, 2002). National Housing Act was passed by the American Congress in 1934 and the Federal Housing Administration (FHA) was established in this year to develop housing conditions and house ownership opportunities for households (Colton, 2002; 2011 Annual Report: Government National Mortgage Association, 2011). Moreover, in 1934, Veterans Administration was established for insuring housing loans to soldiers and retired soldiers. The Federal National Mortgage Association (Fannie Mae-FNMA) was established in 1938 to provide a secondary market for insured mortgages by FHA and VA (Colton, 2002; Gurbuz, 2002; Ayan, 2011).

Fannie Mae was divided into two separate entities in 1968 and the Government National Mortgage Association (Ginnie Mae-GNMA)

was established as a grant institution (Green & Wachter, 2005). Federal Housing Loan Mortgage Corporation (FHLMC) was established in 1970 to provide liquidity, stability, and affordability to the U.S. housing market (Green & Wachter, 2005; 2011 Annual Report: Federal Home Loan Mortgage Corporation, 2011). These housing finance corporations are shown in Figure 4.

Figure 4: Housing Finance Structure of the U.S.



Source: (Komurlu, Ülkemizde Toplu Konut Üretimine Yönelik Kaynak Oluşturma Model Yaklaşımları, 2006)

### 2.1.1. Federal Housing Administration (FHA)

After the Great Economic Depression of 1929 that emerged in the U.S., the volume of transactions in mortgage system had fallen sharply. This development decreased investors' confidence to mortgage-backed securities (MBSs) (Green & Wachter, 2005). In order to solve confidence problem to the mortgage finance system and regain equilibrium, Federal Housing Administration (FHA) was established in 1934 by The Department of Housing and Urban Development under the National Housing Act (Hawtrey, 2009; Hepsen, 2010).

Main purposes of this organization are supplying funds at low interest rates, providing guarantee for hypothecs and creating secondary mortgage market. Implementations of these factors helped to medium and low income groups to become homeowners. Moreover, FHA aims to insure mortgage finance institutions against failure to payment (default risk) of housing loans taken by households (Colton, 2002; Green & Wachter, 2005).

With the attempts of FHA, housing funds with fixed interest rate and fixed-repayments started to increase and also insurance system was developed against default risk of housing loan (Green & Wachter, 2005). FHA provides insurance to mortgage institutions that apply mortgage loan system according to FHA's criteria (Courchane & Giles, 2001). FHA is the first institution that standardized the mortgage loans (Hepsen, 2010). It is a non-profit organization, so it provides insurance with low costs to credit users. Sources of FHA

come from insurance premiums paid by mortgage loan borrowers (Alp & Yilmaz, 1999). FHA is the largest mortgage insurance company in the world with over 34 million mortgage borrowers insured since its establishment in 1934 (Hawtrey, 2009).

### **2.1.2. Veterans Administration (VA)**

The other housing finance related state institution in the U.S. is Veterans Administration (VA) that was established in 1934 to insure housing loans (Colton, 2002). VA was established in order to provide low cost housing funds to soldiers who returned from the war (Courchane & Giles, 2001). It also provides insurance for housing loans which taken by soldiers and retired soldiers (Colton, 2002). VA makes insurance only for housing loans that are given by mortgage companies, banks and specialist housing finance institutions. VA does not take down payments or insurance premiums. Sources of this institution are monthly payments of households who use housing loans which is the same as in FHA (Hepsen, 2010).

### **2.1.3. Federal National Mortgage Association (FNMA–Fannie Mae)**

Federal National Mortgage Association (Fannie Mae or FNMA) was established in 1938 with the aim of organizing activities in the secondary mortgage market, balancing supply and demand for housing and providing liquidity for housing market (Colton, 2002). Fannie Mae aimed at providing these services only to housing loans that have government guarantee and insured by FHA and VA (Alp & Yilmaz, 1999).

Fannie Mae had operated in accordance with these purposes until 1968 in the U.S. housing market. However, mortgage market of the U.S. had not reached satisfactory level over time with the activities of Fannie Mae. Therefore, it was separated into two new corporations in 1968 (Couchane & Giles, 2001; Colton, 2002). One of these institutions is the new Fannie Mae. It was converted to an entirely private capital organization, but it was still a government-sponsored enterprise. Fannie Mae's shares started to trade on the New York Stock Exchange (Lea, 2000). Fannie Mae became a very efficient corporation after having structure of a government-sponsored enterprise with private shareholders (Lea, 2000; Wallison & Ely, 2000).

The reason of the separation into two different organizations of Fannie Mae was the extension of credit through purchasing non-government guaranteed mortgages (Wallison & Ely, 2000; 2011 Annual Report: Government National Mortgage Association, 2011). In some unstable conditions of economy, Fannie Mae did not have enough funds for housing loans. This was causing important problems in secondary mortgage market. Therefore, the U.S. Congress divided Fannie Mae into two different organizations to increase efficiency of this organization (Colton, 2002; Green & Wachter, 2005).

Fannie Mae has started to purchase and sell conventional mortgage loans even if they were not guaranteed by FHA and VA after 1971 (Boleat, 1985). These loans were raised in secondary mortgage market by Fannie Mae. This application increased efficiency of housing market. Moreover, Fannie Mae has started to issue mortgage backed



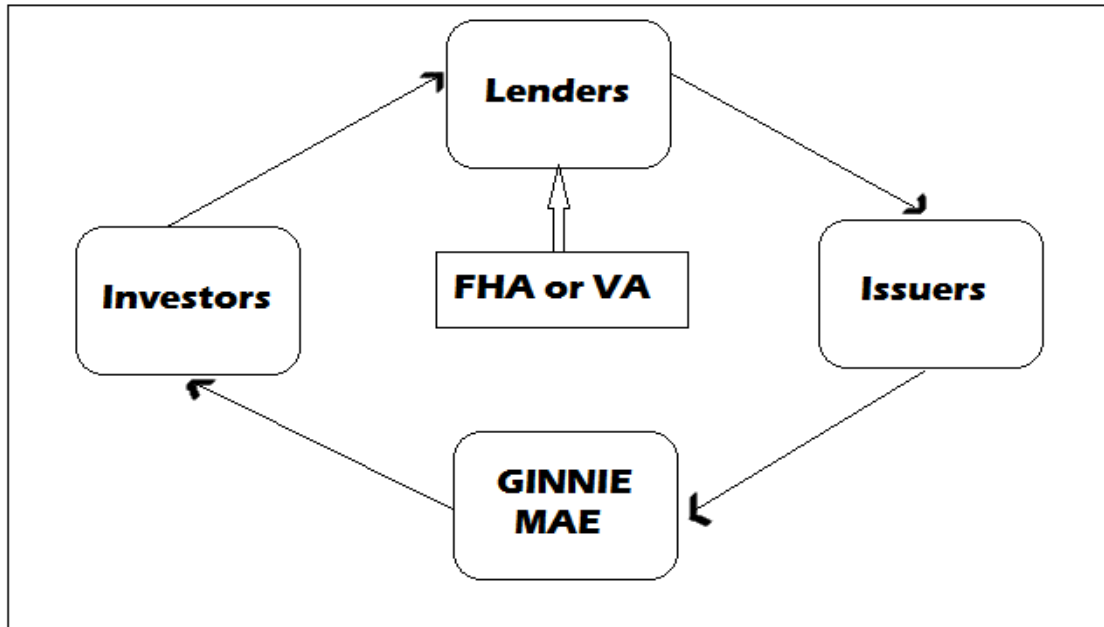
securities after 1981. Today, mortgage backed securities that are issued by Fannie Mae are named as “Fannie Mae MBS”. The prompt and full payment of principal and interest of these securities are guaranteed by Fannie Mae (Hepsen, 2008; 2011 Annual Report: Federal National Mortgage Association, 2011). Today, Fannie Mae has the largest share in the secondary mortgage market of the U.S (Hawtrey, 2009).

#### **2.1.4. Government National Mortgage Association (GNMA–Ginnie Mae)**

As it was stated above, after the separation of Fannie Mae in 1968, the Government National Mortgage Association (Ginnie Mae or GNMA) was established as a government–enterprise in housing market by the U.S. Department of Housing and Urban Development (Alp & Yilmaz, 1999). The aim of this institution was organizing activities in the secondary mortgage market and providing insurance to mortgage backed securities (Hawtrey, 2009). Also Ginnie Mae aimed at starting and encouraging mortgage securitization process in the U.S. housing market (Boleat, 1985; Yilmaz, 2000; Green & Wachter, 2005).

Ginnie Mae has a wholly federal budget and remains as self-financing (2011 Annual Report: Government National Mortgage Association, 2011). Securities issued by this institution are insured directly by FHA and VA against default risk (Boleat, 1985; Courchane & Giles, 2001). The main vehicle of Ginnie Mae is issuing mortgage backed securities (MBS) (Gurbuz, 2002). Figure 5 shows cash flow schedule of Ginnie Mae guaranteed securities.

Figure 5: Cash Flow Schedule of Ginnie Mae Guaranteed Securities



Source: (2011 Annual Report:Government National Mortgage Association, 2011)

Mortgage securitization has started in the U.S. in 1970 with pass-through asset backed securities (Lea, 2000). Securitization of mortgage loan receivables is considered as the most significant improvement in housing finance systems (Yilmaz, 2000).

Ginnie Mae supports the establishment and development of secondary mortgage market by providing guarantee on securities that are issued by private institutions. These securities must be acceptable by Ginnie Mae's own standards (Alp & Yilmaz, 1999; Colton, 2002). In addition, Ginnie Mae provides support for housing production to meet the needs of low-income families (Ozsan, 2005).

As mortgage backed securities of Ginnie Mae are insured by FHA and VA, Ginnie Mae has important prestige among investors (Gurbuz, 2002). Guarantee given by Ginnie Mae is the same as government guarantee. Thus, Ginnie Mae issued securities are valuable as much as treasury bonds and they don't include any risks (Ozsan, 2005). The prompt and full payment of principal and interest of Ginnie Mae issued securities are guaranteed by the full faith and credit of the U.S. This guarantee increases confidence to mortgage loans, so these mortgage loans trade in secondary market efficiently. Today, Ginnie Mae is imperative financing mechanism for all government-insured or government-guaranteed mortgage loans (2011 Annual Report:Government National Mortgage Association, 2011).

#### **2.1.5. Federal Home Loan Mortgage Corporation (Freddie Mac-FHLMC)**

Government guarantee provided by Ginnie Mae doesn't cover all housing loans such as conventional mortgage loans (Colton, 2002). Federal Home Loan Mortgage Corporation (Freddie Mac or FHMLC) was established in order to create secondary mortgage markets and provide liquidity for conventional housing loans by American Congress in 1970 (Boleat, 1985; Yilmaz, 2000; Colton, 2002).

Freddie Mac had only private capital as Fannie Mae and it has been operating and competing in the same sector with Fannie Mae (Hawtrey, 2009). This institution forms mortgage pools by purchasing mortgage loans from savings institutions and credit unions, savings and commercial banks and mortgage banks. Then, Freddie Mac issues guaranteed mortgage certificates and participation certificates (PCs) based on this mortgage pool (Hepsen, 2010).

Freddie Mac provides guarantee for monthly interest and principal payments to investors who purchase issued securities. This institution also issued a different type of mortgage backed security called collateralized mortgage obligations for the first time (Hawtrey, 2009). Freddie Mac uses both the demand and supply side of capital markets. In the demand side, this institution buys housing loans from lenders and issues securities backed by these loans. In the supply side, Freddie Mac makes investments directly to mortgage backed securities which issued by private companies (Wallison & Ely, 2000; Hawtrey, 2009).

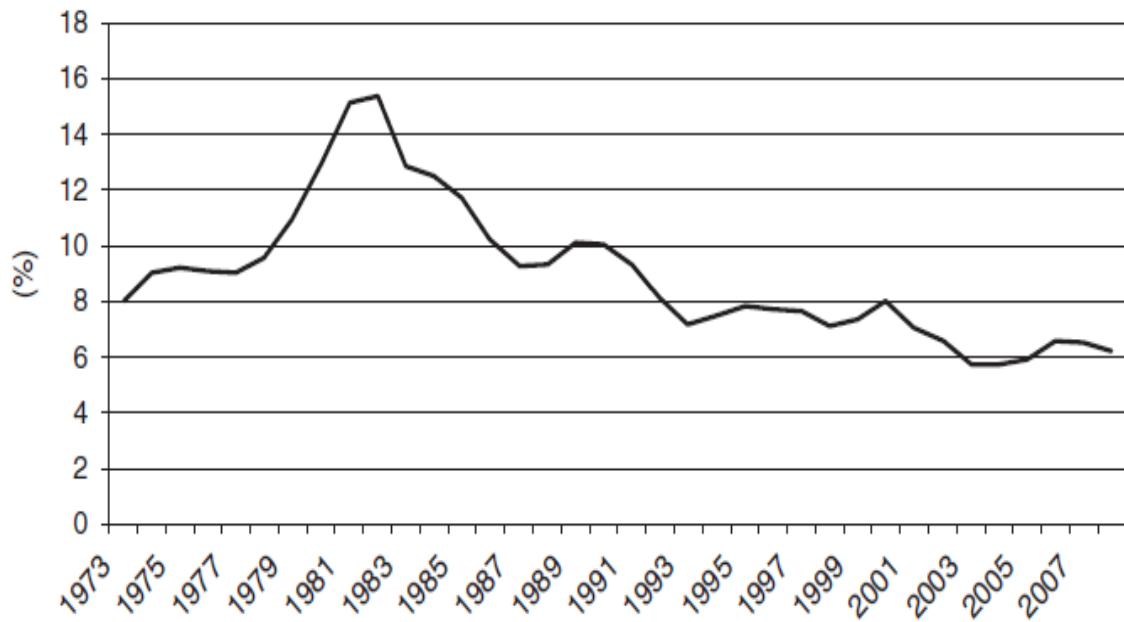
Mortgage backed securitization applications implemented by Ginnie Mae, Fannie Mae and Freddie Mac encouraged establishment of private housing market institutions expeditiously, who wanted to create alternative sources in this way. In 1977, private institutions such as Salomon Brothers and Bank of America issued conventional mortgage loans and collateralized mortgage backed securities. After these applications, private sector organizations also formed their own mortgage pools and implemented securitization process (Hepsen, 2005).

However, when compared with public or publicly supported enterprises, they have less advantageous position in terms of investors' confidence because public or publicly supported enterprises provide government or corporate guarantee for investors. Therefore, private sector institutions started to provide additional guarantees and high interest rates for issued securities (Hepsen, 2008).

General procedure of the U.S. housing finance system can be summarized as follows: Institutions provide mortgage loans and sell their receivables from these loans on the secondary market to secondary market institutions. Therefore, default risk is transferred. This factor provides opportunity to charge low interest rate. Secondary market institutions (FNMA, GNMA and FHMLC) buy mortgage loans receivables and they form a mortgage pool. They issue securities based on this pool and sell them to investors. Thereby, used mortgage loans are offered to market as liquid securities (Colton, 2002; Hawtrey, 2009).

Housing loans maturity ranges from 5 years to 30 years and these loans cover at most 80% of the value of dwelling in the U.S. People who want housing credit should ensure the remaining part of the housing value and therefore homebuyers share some part of risks (Gurbuz, 2002). Interest rates for mortgage loans have been under 10% in the last two decades as shown in Figure 6 (Hawtrey, 2009).

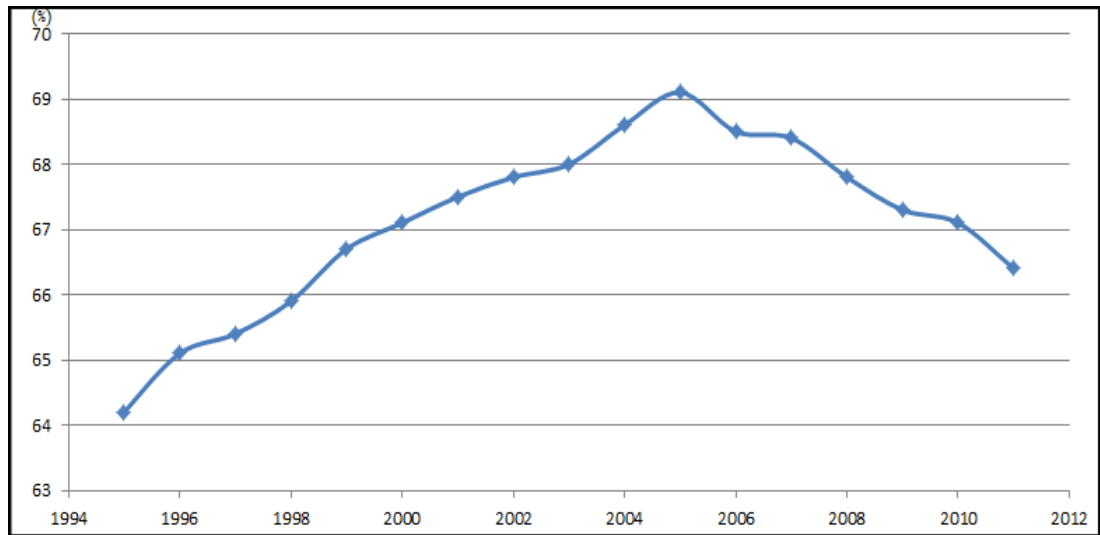
Figure 6: Mortgage Interest Rates in the U.S.: 1973 to 2007



Source: Hawtrey, K. (2009). *Affordable Housing Finance*. Palgrave Macmillan.

Low inflation and low interest rates and also great interest of American people for houses had kept homeownership rate higher than 60% for many years. Home ownership rates of the U.S. citizens between 1995 and 2011 are shown in Figure 7 (Callis & Kresin, 2011).

Figure 7: Home Ownership Rates for the U.S.: 1995 to 2011



Source: Callis, R. R., & Kresin, M. (2011). Residential Vacancies and Homeownership in the Third Quarter of 2011 Washington D.C.: U.S. Census Bureau News.

Home ownership rate was 63% in 1965 and this number reached the peak level of 69.1% in 2005. In 2011, home ownership rate decreased to 66, by 4% due to the economic imbalances and crisis (Callis & Kresin, 2011). Mortgage crisis which emerged in 2007 in the U.S. affected entire American housing finance system negatively. After Great Depression, American government have tried to form a successful and sustainable mortgage market. With this aim, state established and supported various government enterprises. However, mortgage crisis showed that the U.S. housing finance system had immediate concerns. Causes of mortgage crisis examined below in detail.

### 2.1.6. Causes of 2008 Mortgage Crisis

United States has witnessed the greatest financial crisis in 2008 which affected American economy almost as much as the Great Depression of 1929 (Allen & Carletti, 2010; Ökte, 2012). This financial crisis began in August 2007 and it originated from the real estate market of the U.S. Therefore, it is also known as mortgage crisis. Mortgage crisis has affected the U.S. financial markets negatively and crisis spread all over the developing and developed countries (Kutlu & Demirci, 2011).

In 2007, the U.S. subprime mortgage industry had collapsed and several problems emerged in all housing finance system (Bianco, 2008). Mortgage crisis emerged depending on the combination of several factors. The main causes of the crisis are as follows:

#### *2.1.6.1. Loose Monetary Policies of the Fed*

Price bubble of high-tech companies and September 11 attacks in the U.S. caused economic recession at the beginning of 2000s (Kutlu & Demirci, 2011; Ökte, 2012). In order to prevent from economic recession and stimulate the economy, U.S. central bank (Federal Reserve-Fed) reduced short-term interest rates from %6,5 to %1 in the period of 2000-2003 (Bianco, 2008; Basti, 2009; Kutlu & Demirci, 2011; Ökte, 2012). Because Fed believed that interest rates could be reduced securely due to the low inflation rates of the U.S. (Verick & Islam, 2010). After decreasing short-term interest rates to 1%, adjustable interest rates on the mortgage loans were declined by the banks (Kutlu & Demirci, 2011). Low mortgage interest rates encouraged people to purchase houses by taking subprime mortgage



loans (Basti, 2009; Ökte, 2012). During this period, due to the high demand for housing, the importance of housing industry increased rapidly. Huge capital shifted to this industry and housing has become an important investment instrument (Kutlu & Demirci, 2011). Thus, in 2004, the housing prices become very high and the income of households cannot afford to buy houses (Allen & Carletti, 2010). Therefore, Fed started to raise interest rates to decrease the rate of inflation and bubble in house prices (Allen & Carletti, 2010; Kutlu & Demirci, 2011). Interest rates were increased 17 times by Fed from %1 to %5,25 from mid 2004 to 2006 (Bianco, 2008; Basti, 2009; Kutlu & Demirci, 2011). This also increased adjustable mortgage interest rates. Therefore, subprime mortgage borrowers couldn't afford to make their monthly loan payments because adjustable mortgage interest rates made monthly mortgage payments more expensive for homeowners (Verick & Islam, 2010; Kutlu & Demirci, 2011).

Table 1: Annual Interest Rates in the U.S. between 2001 and 2010

Month	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Jan	6.50%	1.75%	1.25%	1.00%	2.25%	4.25%	5.25%	4.25%	0%-0.25%	0%-0.25%
Feb	5.50%	1.75%	1.26%	1.00%	2.25%	4.50%	5.25%	3.00%	0%-0.25%	0%-0.25%
Mar	5.50%	1.75%	1.25%	1.00%	2.50%	4.50%	5.25%	3.00%	0%-0.25%	0%-0.25%
Apr	5.00%	1.75%	1.25%	1.00%	2.75%	4.75%	5.25%	2.25%	0%-0.25%	0%-0.25%
May	4.50%	1.75%	1.25%	1.00%	2.75%	4.75%	5.25%	2.00%	0%-0.25%	0%-0.25%
Jun	4.00%	1.75%	1.25%	1.00%	3.00%	5.00%	5.25%	2.00%	0%-0.25%	0%-0.25%
Jul	3.75%	1.75%	1.00%	1.25%	3.25%	5.25%	5.25%	2.00%	0%-0.25%	0%-0.25%
Aug	3.75%	1.75%	1.00%	1.25%	3.25%	5.25%	5.25%	2.00%	0%-0.25%	0%-0.25%
Sept	3.50%	1.75%	1.00%	1.50%	3.50%	5.25%	5.25%	2.00%	0%-0.25%	0%-0.25%
Oct	3.00%	1.75%	1.00%	1.75%	3.75%	5.25%	4.75%	2.00%	0%-0.25%	0%-0.25%
Nov	2.50%	1.75%	1.00%	1.75%	4.00%	5.25%	4.50%	1.00%	0%-0.25%	0%-0.25%
Dec	2.50%	1.25%	1.00%	2.00%	4.00%	5.25%	4.50%	1.00%	0%-0.25%	0%-0.25%

Source: <http://www.moneycafe.com/library/fedfundsrate.htm>

### *2.1.6.2. The Real Estate Bubble*

The mortgage crisis began with the exploding of the U.S. housing bubble in 2007 and it caused a global financial crisis in 2008 (Bianco, 2008; Basti, 2009). Policies followed by the Fed enabled increasing of average dwelling prices. Housing prices increased by 40% between the years 2000–2006 in the U.S. (Mah & Lim, 2008). Increase in the prices of housing units led to construction of new dwellings and number of unsold housing units increased. Therefore, housing bubble emerged in real estate market (Allen & Carletti, 2010, p:5). Then, as a result of the recession in the real estate sector, housing prices started to fall sharply at the beginning of 2006 (Ermişoglu et al. 2008; Bianco, 2008). Subsequently, many subprime mortgage borrowers didn't want to make their loan payments. Because, the amount of remaining mortgage debt exceeded the current value of their housing (Basti, 2009; Kutlu & Demirci, 2011). This affected all financial markets negatively and thus, housing bubble exploded in 2007 (Mah & Lim, 2008; Bianco, 2008; Allen & Carletti, 2010; Ökte, 2012). As a result of the bursting housing bubble, the rate of the default and foreclosure had begun to increase (Mah & Lim, 2008). In 2006, the number of housing foreclosures reached 2.2 million (Basti, 2009). After bursting of the bubble, trillions of dollars of home value being lost (Bianco, 2008:3). Explosion of the housing bubble is one of the main factors of the mortgage crisis (Verick & Islam, 2010).

### *2.1.6.3. Huge Increases in the sub-prime Mortgage Loans*

The other important reason for the mortgage crisis is high-risk subprime mortgage loans (Bianco, 2008). The volume of the subprime mortgage loans increased due to the low interest rates, high risk

taking of lenders and higher-risk borrowers (Basti, 2009; Kutlu & Demirci, 2011). Subprime mortgage means that loans are given to households who don't have assets or regular income and have poor credit history (Mah & Lim, 2008). During the Bush administration, in order to help low-income borrowers, government commanded Fannie Mae and Freddie Mac to provide imprudent mortgage lending with affordable lending rates (Basti, 2009:92). Therefore, the volume of the subprime mortgage loans and dwelling prices had started to increase. Increasing housing prices had encouraged borrowers because they were thinking that the prices would continue to increase and they would be able to sell their houses with high prices even if they could not afford to pay their mortgage instalments (Basti, 2009). On the other hand, in order to obtain more profit, financial institutions took more risks due to the advantages of the low interest rates, and they started to provide subprime mortgage loans to those households (Kutlu & Demirci, 2011). Between the years of 2004-2006, 1,5 trillion dollars subprime mortgage loans were provided by financial institutions to households (Mah & Lim, 2008). In 2002, the rate of used subprime mortgage loans in total mortgage loans was 6% but this rate reached up to 20% in 2006 (Basti, 2009). And, approximately, 5 million housing units had been bought with the subprime mortgage loans between the years of 2001-2006 (Kutlu & Demirci, 2011). As a result of these, home ownership rates increased gradually and reached %69,1 in 2005 (Callis & Kresin, 2011).

Subprime mortgage loans had higher interest rates than other mortgage loans because these loans included more risks. Moreover, most of the subprime mortgages were adjustable-rate mortgages.

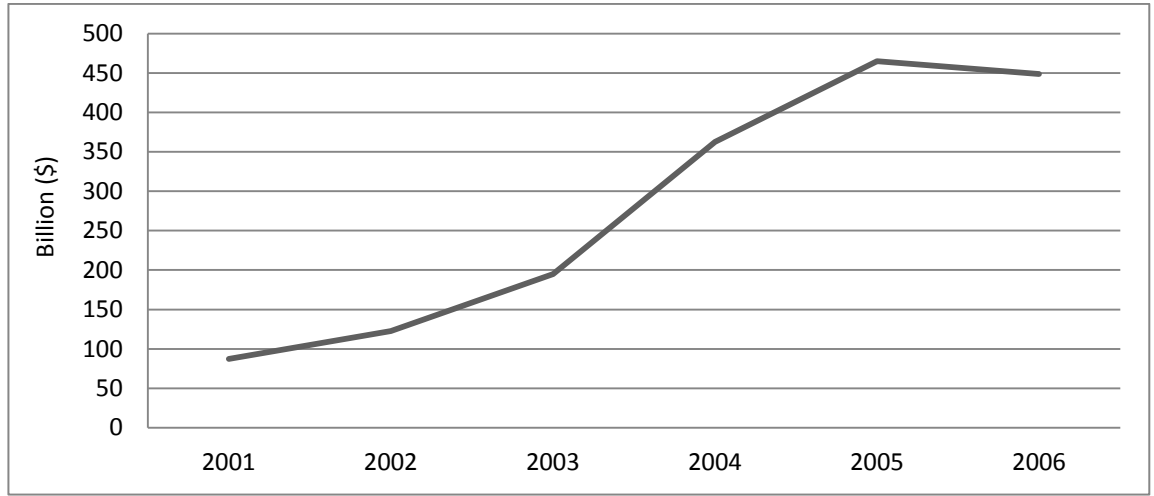
Normally, subprime mortgage loans had fixed interest rates for two or three years. However, after two or three years adjustable interest rates were applied according to market interest rates (Kutlu & Demirci, 2011). As a result of the increasing interest rates after 2004, the amount of monthly payment of adjustable subprime mortgage loans increased and people couldn't afford to make their payments (Ermisoglu et al. 2008). In 2007, the U.S. subprime mortgage industry had collapsed (Bianco, 2008:13).

#### *2.1.6.4. Widespread Securitization*

As a result of the increase in the volume of risky subprime mortgage loans, a significant portion of these loan receivables were started to be securitized by the financial institutions. After securitization, brokers and some mortgage banks sold mortgages partially or completely to investors (Basti, 2009; Allen & Carletti, 2010). Because, securitization made easy to transfer credit risks from one financial institution to another through mortgage backed securities (Mah & Lim, 2008). Investors, who were seeking for higher return, purchased these securities. However, any delaying of loan repayments caused loss to both banks who granted loans and investors who bought securitized loans (Kutlu & Demirci, 2011).

As a result of the securitization of subprime mortgage loans receivables, the volume of the issued mortgage backed securities (MBS) had increased annually and reached \$448,6 billion in 2006 (Kutlu & Demirci, 2011) which is shown in Figure 8.

Figure 8: The Volume of the Issued MBS between 2001 and 2006



Source: Kutlu, H. A., & Demirci, S. (2011). Küresel Finansal Krizi (2007-?) Ortaya Çıkaran Nedenler, Krizin Etkileri, Krizden Kısmi Çıkış Ve Mevcut Durum. *Muhasebe ve Finansman Dergisi*, 121-136.

The share of subprime mortgages which were securitized and sold to investors increased from 54% in 2001, to 75% in 2006 (Bianco, 2008). Brokerage firms, which package and sell subprime mortgage loans to investors, gained higher earnings. However, after the start of the defaults in mortgage loan repayments, the values of mortgage-backed securities loans have declined sharply. Therefore, financial institutions invested in these assets have been exposed to large amount of losses (Allen & Carletti, 2010; Kutlu & Demirci, 2011).

Indeed, Alan Greenspan, who managed Fed for 18 years, stated that main cause of the mortgage crisis was not only origination of mortgage credits, but also packaging loans in the mortgage pool and reselling them to the other financial institutions (Ermisoglu et al. 2008; Basti, 2009).

The volume of collateralized debt obligations (CDO) is also increased because investors demanded high income from their high risk mortgage loans. After the recession in real estate market, liquidity rates started to decline in market and mortgage institutions couldn't sell collateralized debt securities to investment banks. Thus, the value of the collateralized debt securities declined sharply and investors were forced to sell the collateralized debt securities at the prices between 20% - 40% of original values (Kutlu & Demirci, 2011). Therefore, issuance of collateralized loans and mortgage backed securities stopped in 2007 unless they have government guarantee. In January 2008, total amount of issued CDO was 11 trillion and 750 billion dollars (Ermisoglu et al. 2008). During this term, not only the prices of risky mortgage backed securities, but also prices of less risky mortgage backed securities began to decline. Thus, banks stopped lending to each other because of possible future losses and insecurity and risks increased in the market. Accordingly, all the credit market contraction started (Kutlu & Demirci, 2011).

#### *2.1.6.5. Fundamental Flaws in the Rating Agencies' Business Model*

Rating agencies, which determine the risks of the securities, have the greatest responsibility in the mortgage market collapse (Allen & Carletti, 2010). Before the crisis, financial institutions had invested huge capital to the mortgage backed securities according to the credit ratings which were assigned by rating agencies (Allen & Carletti, 2010). However, credit ratings that were given by rating agencies hadn't reflected the real values. Rating agencies had several problems before the crisis. The most important problem related to the rating

agencies is the conflict of interests (Bianco, 2008; Basti, 2009). Rating agencies assigned rating scores to banks and other financial institutions, but at the same time they were financed by these institutions. Therefore, rating agencies couldn't make objective assessment (Bianco, 2008; Basti, 2009; Allen & Carletti, 2010). On the other hand, rating agencies were not able to determine financial problems of these financial institutions every time due to the lack of information (Basti, 2009; Verick & Islam, 2010). Sometimes, they learned problems partially or too late. Another problem is that rating agencies only rated default risk and they didn't measure liquidity risk (Allen & Carletti, 2010). Investors who were serviced by rating agencies didn't know these handicaps. Before the crisis, rating agencies were unsuccessful (Mah & Lim, 2008; Basti, 2009). They began to reduce credit ratings after the start of the financial crisis.

#### *2.1.6.6. Global Imbalances versus Excessive Liquidity Rates*

Global imbalances allow to growth in lending in the countries which apply loose monetary policies (Allen & Carletti, 2010; Ökte, 2012). As a result of loose monetary policies of Fed, there were a \$790 billion current account deficit in United States in 2007 and 93% of this deficit was financed by China, Japan, Germany and Gulf countries because they run large current account surpluses (Mah & Lim, 2008). Huge amount of the surplus of savings flowed from these countries to U.S. after 2000. Thus, liquidity ratio continually increased in the U.S. financial markets from 2000 to the end of 2006. High global liquidity rates were an important factor in excessive risk taking by financial institutions (Basti, 2009; Verick & Islam, 2010). In order to obtain more profit, huge amount of liquidity were invested through

various financial transactions in mortgage market even though high risks of financial instruments (Kutlu & Demirci, 2011). Depending on the high liquidity, financial institutions supplied mortgage loans to households who even don't have job and any income (Basti, 2009). When interest rates were increased by the Fed, many housing loan repayment problems emerged and the number of foreclosed houses began to increase in the portfolios of banks (Mah & Lim, 2008; Kutlu & Demirci, 2011). High liquidity rates and low interest rates of the U.S. caused excessive consumption of households and they went into excessive debt (Mah & Lim, 2008; Basti, 2009). As a result of the heavy indebtedness of the U.S. households, they couldn't make their monthly loan payments and delivered the keys of their houses to the banks (Basti, 2009). Failure of mortgage payments caused huge amount of losses and the problem spread to many financial institutions (Allen & Carletti, 2010).

As mentioned above, U.S. mortgage system has many advantages. The system allows banks to increase their mortgage loan extension capacity, provides diversification and liquidation opportunity to every level of mortgage investors. However, deregulations with the incentive of allowing also to the poor to purchase houses with mortgage loans initiated agency problem in almost every stage of the system. Banks did not pay attention to repayment capacity of home buyers because of the opportunity to sell the mortgage receivables. Mortgage firms purchased those risky mortgage receivables and accumulated in a pool as they would issue securities backed by the pool and insurance companies would guarantee the repayment of the mortgage receivables etc. Therefore, the U.S. based mortgage system



may be a solution to housing problem in developing countries, but the system must be regulated prudently and the application must be supervised by a governmental institution.

## 2.2. GERMANY

Germany had struggled with great housing problems after First and Second World Wars because large part of the existing housing stock was unusable after those wars (Komurlu, 2006). During the World War II, approximately 80% of housing stock was destroyed in Germany (Gurbuz, 2002). Therefore, housing production started immediately after the World War II in order to compensate this housing deficit. Moreover, housing finance has become very important and capital markets developed in Germany (Komurlu, 2006). Stability in the German economy and successful housing policies had a positive effect on solving housing problem of Germany (Gurbuz, 2002). Nearly 5 million new houses were built until 1976 in Germany (Komurlu, 2006).

Housing finance system is based on Mortgage System with the Contractual Method in Germany. Mortgage Banks, Savings Banks, Building Savings Banks (Bausparkassen), Central Revenue Institutions, Credit Cooperatives, Regional and Commercial Banks and Special Funded Banks are the housing finance institutions of Germany (Gurbuz, 2002). These institutions are not governmental organizations and they have entirely private capital. They can only provide their mortgage loans in long term and short-term credit is prohibited (Hepsen, 2010).

Building Savings Banks (Bausparkassen), which started to be used after the World War I, have major contributions to the housing finance system of Germany. Nowadays, Building Savings Banks are operated in the best way in Germany (Kilic, 2007).

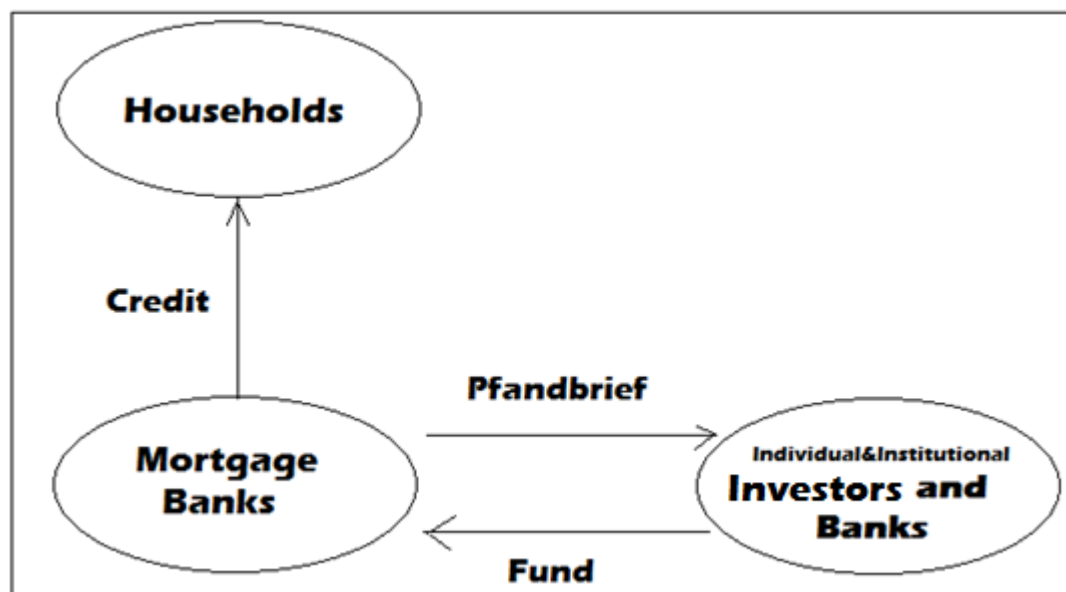
Boleat (2004) and Kilic (2007) explain the general procedure of Bausparkassen system as follows: Persons, who wish to use housing loan under the saving contract in future, have to make savings during a certain period of time in Bausparkassen at rates below market interest rates. Persons, who completed this period, can borrow at low interest rate in long-term only to finance housing. Interest rates charged on loans and savings by Bausparkassen are lower than the market terms. The success of this system depends on keeping interest rates as low as possible. In this system, individuals accept low interest rates for their savings and they are also able to use housing loans with low interest rates (Boleat, 2004). Sources of these loans come from individuals who save for housing down payment and invest these funds to Bausparkassen (Boleat, 2004; Kilic, 2007).

Building Savings Banks still provide funds for housing and this system is implemented successfully in Germany. There are totally 28 Building Savings Banks in Germany, 17 of which are private and 11 of which are public. Number of houses that has been built after World War II through financing from these banks is more than 13 million. Funds provided for construction, maintenance and repairing of these houses are nearly 800 billion Euros (Kilic, 2007).

In addition to Building Savings Banks, another widely used model of housing finance system in Germany is “Pfandbrief” model. Pfandbrief is a mortgage-backed bond that is obtained from securitization process. In the securitization process of German system, housing loans are collected in a pool and “Pfandbrief”s are issued based on this pool (Mastroeni, 2001).

Pfandbrief system’s volume reached to \$ 182.5 billion by the end of 2007 (Hepsen, 2008). The Pfandbrief market is the largest segment of the German bond market and it is also the largest non-governmental bond market in Europe (Lea, 2000; Mastroeni, (2001). The success of this system depends on the well-functioning private mortgage market of the Germany (Hepsen, 2008). Three dimensions of Pfandbrief system, households, mortgage banks and investors (individual and institutional) and banks are shown in Figure 9 (Hepsen, 2010).

Figure 9: Pfandbrief System



Source: Hepsen, A. (2010). *Gayrimenkul Piyasalari ve Finansmani*. Istanbul: Literatur Yayinlari.

The German mortgage banks are operating efficiently and they are the most successful financial institutions in Europe (Stephens, 2003). Funds raised through the issuance of Pfandbrief are made available to households by mortgage banks. Mortgage banks also issue Pfandbrief based on credit receivables and sell these securities to investors and banks (Mastroeni, 2001). Housing loans are provided to real estate sector up to 25 years maturities after the issuance of these securities (Ozsan, 2005).

Mortgage Banks provide loans up to %60 of cost of housing production (Mastroeni, 2001). Remaining part of housing price should be supplied by the person who applied for the housing credit. This application reduces default risk of housing loans (Ozsan, 2005). According to Mortgage Laws of Germany, mortgage banks which issue mortgage loans cannot take interest rate risk. This means securitized assets should have the same maturity as housing loans. Thus, it is not legally possible for housing loan borrowers to make an early payment except for certain period passes. If borrowers make payments of loans before maturity date, they have to pay early payment penalty (Dogru, 2007; Komurlu, 2006).

German government doesn't enter the housing market directly as a housing producer. However, it provides some incentives, such as tax exemptions, tax breaks and low interest rates for mortgage bonds. This provides flow of private funds to housing production. It means individuals and companies produce and own houses with their own sources (Komurlu, 2006).

German housing system operates very efficiently and has the largest share of mortgage loans in Europe. Thus, many of the other countries follow and apply some characteristics of this system (Stephens, 2003).

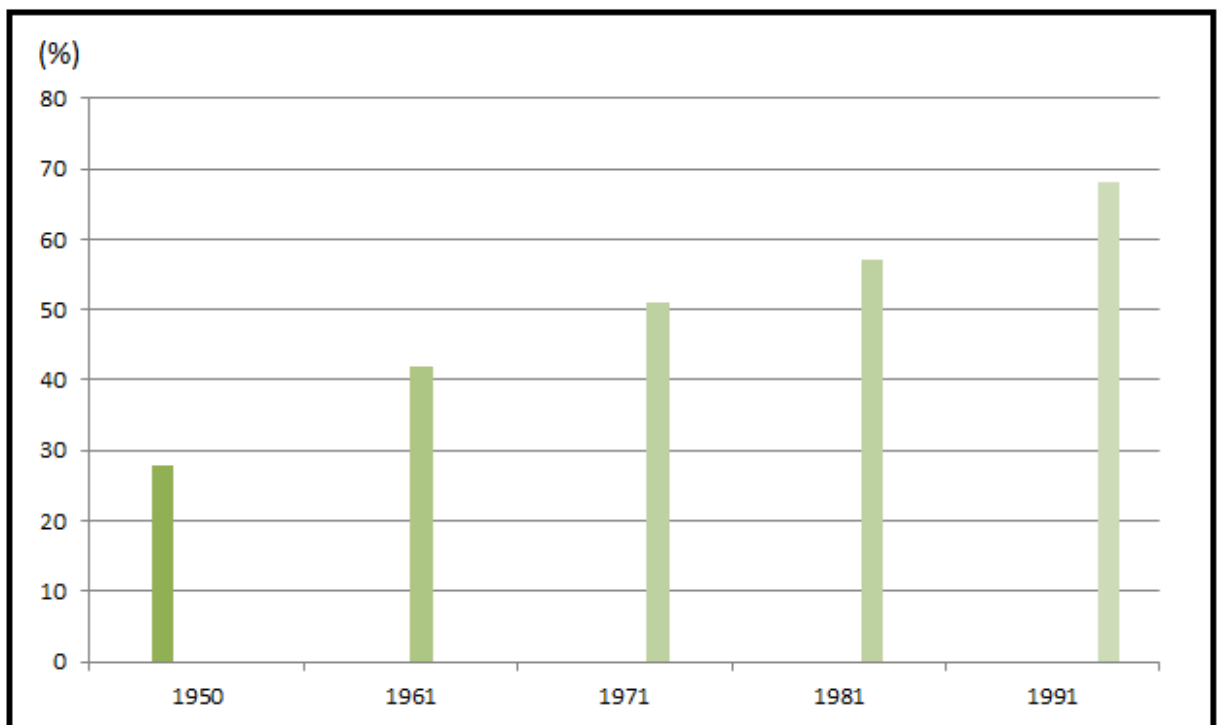
### 2.3. ENGLAND

In terms of housing, like Germany, United Kingdom was also damaged considerably in the Second World War. Approximately, 500,000 houses were destroyed and 3.5 million houses were damaged during the war (Komurlu, 2006; Hawtrey, 2009). After the Second World War, home-ownership ratio was under 30% in the UK (Boleat, 2008). Because of this serious housing problem, the British government gave great importance to housing policy and applied a variety of housing policies to close the housing deficit (Hawtrey, 2009). Government empowered local authorities substantially and gave duties to them to solve the housing problem (Komurlu, 2006). In this regard, local governments had encouraged construction sector with low-cost loans and subsidies to make qualified houses for broad income groups (Boleat, 2008).

In the following periods, open market policy had started to be implemented and also private sector was supported by the government to close housing deficit. As a result of these applications and supports, more than 2,9 million houses were produced by local authorities until 1964 (Stone, 2003). Housing production volume reached record levels during the 1960s. Totally 425,800 units were completed in 1968 and this was the peak number for the England housing sector. In this year,

private sector institutions reached a record by building 226,100 units of housing (The UK Housing Market over the past 50 years, 2010). Then, home-ownership rate reached to 50% by the beginning of 1970. In 1979, after the election of Conservative Party, houses owned by local authorities started to be sold to the households. Between 1980 and 2005, 1,770,000 public sector houses were sold with the government program (Right to buy) to the households who were living in homes with up to 60% discounts. This application increased owner occupation rate and decreased private renting rate sharply in these years. The ratio of home-ownership reached to 65% at the beginning of 1990 (Stone, 2003; Boleat, 2008). Development of home-ownership ratio in England between the years of 1950 to 1990 is shown in Figure 10.

Figure 10: Homeownership Rates in the UK: 1950 to 1990



Source: (Boleat, Housing Development and Housing Finance in Britain, 2008)

The British Government wishes that everyone should have access to a home with a reasonable price where they want to live and work. Also, enough number of houses should be built and these houses must meet customers' expectations. In order to bring these goals into reality, housing finance system has been developed in Britain, which determines requirements of households and housing organizations (Housing Finance Review: Analysis and Proposals, 2008).

Nowadays, housing market of England is one of the most flexible and competitive housing markets with its effective and efficient structure in Europe. There are hundreds of housing institutions operating in this market to provide wide range of housing loans to borrowers (Boleat, 2008).

Housing finance market of England is dominated by Building Societies (Boleat, 2008). Building societies are depository institutions that specialize in housing finance and also offer banking and other financial services (Lea, 2000).

Building Societies was first founded in Birmingham in 1775 (Kilic, 2007; Boleat, 2008). At the beginning, small groups of people come together with their personal sources to build dwellings for themselves. These societies have started to operate effectively in the housing finance market of England since the end of 1930s. After these years, they increased their capacity and some of them started to operate with hundreds of branches all-around England (Boleat, 2008).

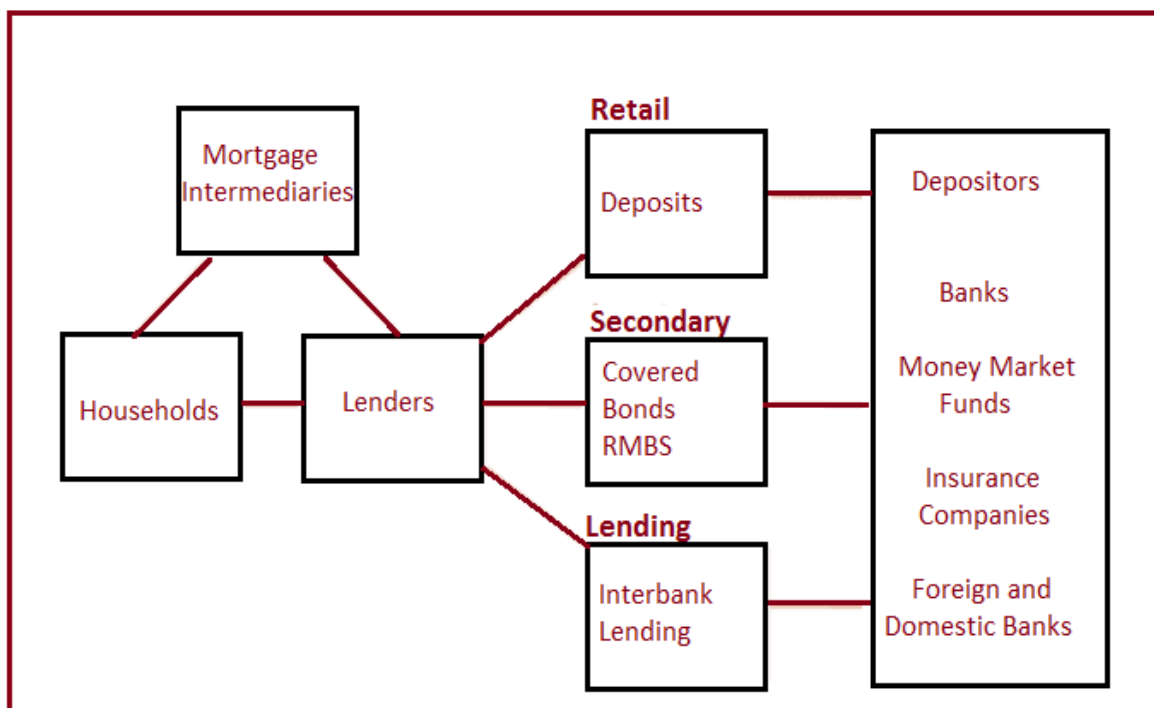
Government began to focus politically and provided augmented incentives to Building Societies due to their effective operations in the housing finance system since 1970s. Legal status of Building Societies was changed in 1975. Nowadays, these organizations provide approximately 70% of mortgage loans in England (Kilic, 2007).

Building societies provide up to 90% of the housing cost with 20–25 year loans. They give adjustable interest rate loans. Interest rates on these loans vary depending on the situation of the market. Building societies also apply adjustable interest rate to all deposit accounts (Boleat, 2008).

At the start of 2008, there were 59 building societies in England with total assets exceeding £360 billion (The UK Housing Market over the past 50 years, 2010). The largest building societies in the mortgage sector of England are Halifax, Abbey National, C&G/Lloyds TSB, Nationwide Building Society, and the Woolwich plc. (Lea, 2000). These institutions collect deposits from households and they keep an appropriate amount of that money as liquid assets and then rest part of the money is allocated to individuals as housing loans who want to buy houses. Housing finance structure of England is shown in Figure 11.



Figure 11: Structure of Housing Finance System in the UK



Source: (Housing Finance Review: Analysis and Proposals, 2008)

England has the second largest mortgage market in Europe with the volume of 1,1 trillion Euros (Lea, 2000). However, securitization rate is very low in England because of building societies. They hold mortgage loans on their balance sheets rather than securitizing because mortgage loans have variable interest rates in England and it can cause increased costs of funds for mortgage credit borrowers (Boleat, 2008; Gaschler, 2010).

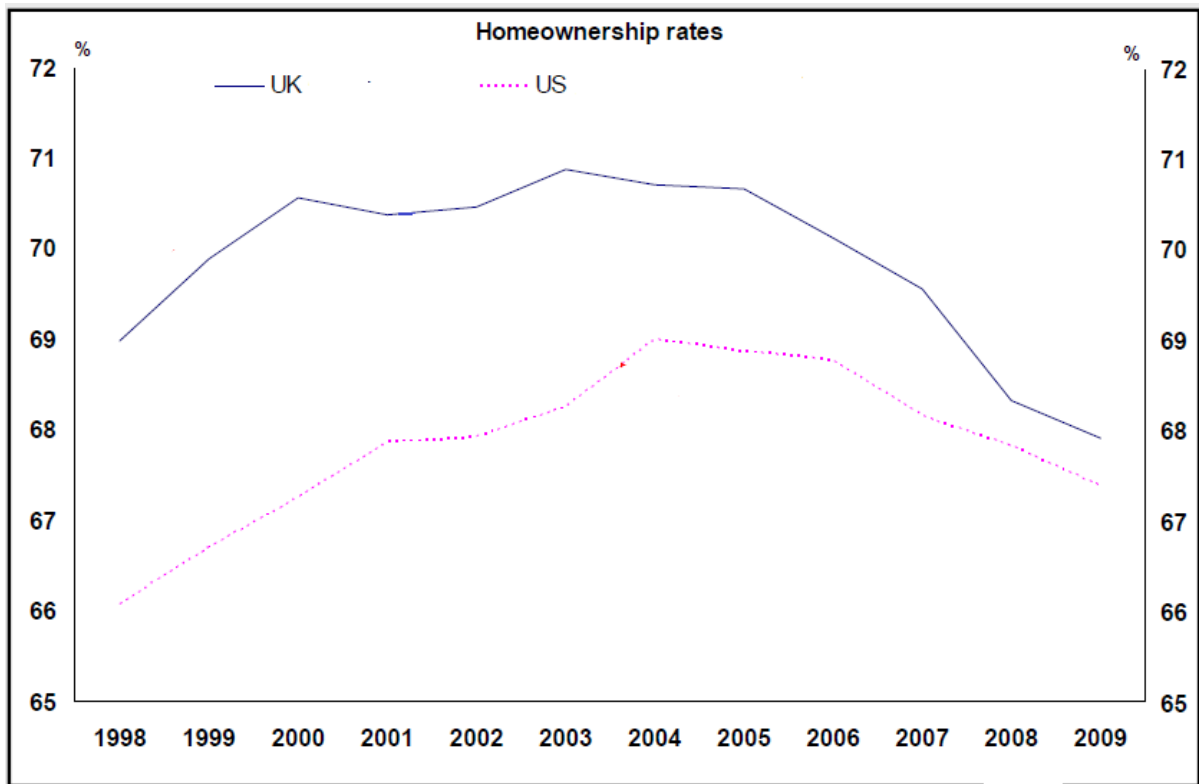
Building societies have largest share in housing finance market of England. Moreover, the share of banks and local organizations has been increasing in the housing finance market recently (Lea, 2000).

Housing subsidies of government are almost entirely transferred through the local authorities in England. Local authorities have various housing finance policies that generally consist of rent control, tax facilities and public subsidies (Stone, 2003).

Thinking that there is a demand for the loans provided by mainly building societies, commercial banks and local authorities, there seems no drawback for these institutions in creating long-term sources (Stone, 2003).

The population growth rate of England is slow so home-ownership ratio is above the average of the U.S. (Lea, 2000). Figure 12 shows home-ownership rates of England and the U.S. in the last decade.

Figure 12: Homeownership rates of England



Source: (Owner-occupier rates set to fall further on both sides of the Atlantic, 2010)

According to Figure 12, home ownership ratio had reached its peak in 2003 with 71% in the England. Despite the fluctuations and crisis in the housing sector in recent years, home ownership is about 68% in the England in 2010. Increase in the rate of housing ownership is considered as one of the most important achievements of the British Government. Government aims to increase this ratio up to 75% with the construction of 240,000 new homes per year by 2016. Government also targets building three million net additional homes by 2020 (Housing Finance Review: Analysis and Proposals, 2008). Home ownership has become one of the most important investment instruments of England and it has homeownership rates higher than the

U.S. and Germany (Housing Finance Review: Analysis and Proposals, 2008).

The average house prices in England have increased in nominal terms over the past 50 years from £2,507 in 1959 to £162,085 in 2009. In other words, the average price of houses has risen by 273% since 1959 (The UK Housing Market over the past 50 years, 2010).

Table 2: Real House Price Changes in England: 1959 to 2009

	Total % Change	Average % Annual Change
1959-1969	36	3.1
1969-1979	34	3.0
1979-1989	61	4.9
1989-1999	-22	-2.4
1999-2009	62	5.0
1959-2009	273	2.7

Source: (The UK Housing Market over the past 50 years, 2010)

A low rate of population growth in the UK is the most important structural factor in the housing sector. The total population in the UK has grown from 52.8 million in 1961 to 62 million in 2010. According to Halifax's estimates, the number of households has increased from 16.7 million in 1961 to 26.6 million in 2009 in the UK. Approximately, 13 million housing units have been built in the UK in the past 50 years. Therefore, owner-occupation has increased by 25 percentage points from 43% in 1961 to 68% in 2008. The proportions of dwellings, which are privately rented, have fallen significantly from 33% in 1961 to 14% in 2008. The relative size of the socially rented sector in 2008 (18%)

was lower than in 1961 (25%) (The UK Housing Market over the past 50 years, 2010).

Table 3: UK Dwelling Stock by Tenure (%)

	<b>Owner-Occupied</b>	<b>Social Housing</b>	<b>Private Rented</b>
<b>1961</b>	43	25	33
<b>1971</b>	50	31	19
<b>1981</b>	56	33	11
<b>1991</b>	67	25	9
<b>2001</b>	69	21	10
<b>2008</b>	68	18	14

Source: (The UK Housing Market over the past 50 years, 2010)

## CHAPTER 3

### HOUSING FINANCE APPLICATIONS IN TURKEY

Turkey is one of the most populous country in the world as well as the population growth rate is well above than the world's population growth rate (Elliot, 2010). Total population of Turkey increased more than twice since 1970s and reached 74.7 million in 2011, which is shown in Table 4 (Coskun, 2011). Depending on the increasing population, urbanization level increased significantly and reached to 70.5% and estimated to be 75% by 2015 (Elliot, 2010; Erdogdu, 2010). Although Turkey's population growth and urbanization rate is high, housing supply remains very low. It causes to high housing prices in Turkey (Elliot, 2010).

Table 4: Population Growth in Turkey

<b>Years</b>	<b>Total Population</b>		<b>Population Growth Rate</b>
1970	35.605.000		
1975	40.348.000	1970-1975	%13,32
1980	44.737.000	1975-1980	%10,88
1985	50.664.000	1980-1985	%13,25
1990	56.473.000	1985-1990	%11,47
2000	67.804.000	1990-2000	%20,06
2008	71.517.000	2000-2008	%5,48
2011	74.724.000	2008-2011	%4,47

Source: Hepsen, A. (2010). *Gayrimenkul Piyasalari ve Finansmani*. Istanbul: Literatur Yayinlari.

Housing needs are continuously increasing in Turkey due to industrialization, demographic movements and the population growth (Coskun, 2011). Cumulative housing requirement of Turkey as of 2010 is approximately 13 million (Table 5).

Table 5: Cumulative Housing Requirement of Turkey: 2007–2010

Years	Cumulative Housing Requirement
2007	12.162.395
2008	12.426.298
2009	12.689.711
2010	12.952.737

Source: Hepsen, A. (2010). *Gayrimenkul Piyasaları ve Finansmanı*. İstanbul: Literatur Yayınları.

In order to close housing deficit, more than 500.000 new housing units should be built each year (Elliot, 2010; Coskun, 2011). However, annual housing production and the existing housing stock is not sufficient to meet this demand (Turk & Altes, 2010; Coskun, 2011).

### 3.1. Historical Development of Housing Finance Sector of Turkey

In Turkey, different housing policies were followed by governments after the foundation of the Turkish Republic (Komurlu, 2006). Before the establishment of the Turkish Republic, there were no governmental or private entities that arrange housing operations and housing funds (Kilic, 2007). For this reason, Ministry of Exchange, Reconstruction and Settlement (Mübadele, İmar ve İskan Bakanlığı) established in 1923. In 1924, this ministry was removed and General Directorate of Settlement (İskan Genel Müdürlüğü) was created (Alkiser & Yurekli, 2004). Then, in order to improve the construction sector and provide funds for housing production, Real Estate and Orphan's Bank was established by the government in 1926 (Aydin, 2006; Ayan, 2011).

During this period, due to slow urbanization rate, housing needs was not a significant problem. Housing problem first emerged in Ankara during the 1930s because civil servants have begun to move to the capital city. There was a serious housing shortage in Ankara after it was determined as the capital city. In this period, the Department of Urbanization had been established in Ankara in order to create housing policies and urbanization planning (Alkiser & Yurekli, 2004; Komurlu, 2006).

In these years, housing sector was supported by the government through credits and housing benefits to civil servants. Moreover, free projects and lands were provided to public officials to build their own homes in a certain period. During the 1940's, there was an intensive construction process in Ankara (Alkiser & Yurekli, 2004).

Before 1950, housing was not an important problem for Turkey as the migration level from rural to urban areas was slow and also the industrialization level was very low. However, housing shortage has started to exist since 1950s due to the high rate of urbanization and industrialization (Turhan, 2008; Turk & Altes, 2010; Coskun, 2011). People started to migrate from rural areas to big cities especially to Istanbul due to the good opportunities for job, income, education, health and social activities (Elliot, 2010). Between the years of 1950 and 2000, the urbanization level in Turkey has increased from 18.5 percent to 65.6 percent (Turk & Altes, 2010). As a result of this urbanization rate, housing problem and a huge number of housing deficit emerged in large cities (Elliot, 2010; Erdogdu, 2010). However,



existing housing finance structure and corporations couldn't meet this huge demand for dwellings (Turk & Altes, 2010).

Due to the significant effects to development of the economy, public authorities started to create new solutions for housing problem and wanted to solve this problem by following different policies in different periods (Komurlu & Onel, 2007).

Social Security Institution (SSI), which was established in 1946 with Law No: 4792, provided housing loans to labour cooperatives to build worker houses (isci evleri) for their members. Although, construction of houses with these cooperatives took a long time, many workers became homeowner with this way (Alkiser & Yurekli, 2004; Komurlu, 2006). On the other hand, the status of Real Estate and Orphan's Bank had been changed with Law No: 4947 and it was named as Turkish Real Estate Credit Bank in 1946. This bank aimed to provide housing funds with long-term and low interest rates. Also, it aimed to construct new houses and provide loans for housing corporations (Alkiser & Yurekli, 2004; Komurlu, 2006).

In order to make new arrangements and provide financial support to housing sector, Ministry of Resettlement and Construction was established by the government in 1958. This ministry provided credits to housing cooperatives and local municipalities to prevent the construction of shanty houses (Komurlu, 2006). In addition, Ministry of Resettlement and Construction ensured funds to governmental or municipal enterprises to build public housing for middle and lower income groups. After the establishment of Housing Development

Administration of Turkey (HDAT, Toplu Konut İdaresi - TOKİ), this ministry transferred all of its housing responsibilities to HDAT in 1984 (Gurbuz, 2002; Hepsen, 2010).

The needs for apartments or multi-floored houses emerged due to the rapid urbanization and transition from traditional family to nucleus family. Therefore, floor ownership (kat mulkiyeti) was legalized in 1965. This law enabled formation of high flats in big cities (Yetgin, 2007). Also self-provision system was developed depending on this law and housing constructors (müteahhitler) started to build high flats after having agreement with land owners (Alkiser & Yurekli, 2004).

General Directorate of Land Office had been established in 1969 under the Ministry of Resettlement and Construction. The purpose of this organization was to prevent land speculation and also to supply lands for public housing areas, industrial zones and touristic areas. This office also transferred its housing activities to HDAT in 2004 (Demir & Palabiyik, 2005; Building Turkey of Future, 2011).

In Constitution 1961, the mission of ensuring appropriate housing with healthy conditions for low income and poor families was given to the government. Therefore, State Planning Organisation (SPO) was established in 1961 (Elliot, 2010). SPO initially organized five-year development plans and it has given great importance for the production of housing and regular urbanization within these plans. In first, second and third plans, SPO was planned to increase mass housing production through ensuring housing credits to producers. In

the fourth and the following plans, SPO had calculated housing deficit of Turkey annually and planned to transfer public lands to public housing institutions and local governments to close housing deficit in an effective way (Demir & Palabiyik, 2005).

The period between 1960 and 1980 is known as Planned Development Period (Camur, 2007). In the planned period, both single housing production and mass housing production was accepted as a government policy and these two approaches had been supported by the state projects (Elliot, 2010).

Housing finance methods applied in Turkey will be examined in detail under the headings of non-institutional and institutional structure of Turkish housing finance systems below (Coskun, 2011).

### **3.2. Non-Institutional Structure of Turkish Housing Finance System**

A housing finance system that achieves sufficient number of housing production and provides required financing couldn't be established in Turkey for many years (Coskun, 2011). Therefore, people have mostly used their personal savings and applied for non-institutional sources to meet their housing requirements (Ozturk & Dogan, 2010).

Personal savings is the largest resource for homeownership in Turkey. In addition to using personal savings, people obtain resources from selling their old houses and valuable assets such as gold and silver. Moreover, funds from relatives, inheritances, close friends and employer or colleagues, savings from abroad are widely used in Turkey

to become a home-owner as shown in Table 6 (Berberoglu & Teker, 2005; Erdogdu, 2010; Hepsen, 2010).

Table 6: Resources Used to Purchase Houses in Turkey (1999)

Used Resources	Number of Households	Rates
Personal Savings	4.365.596	61.90%
Debt from Relatives/Friends	867.731	12.30%
Family	725.976	10.30%
Selling old Houses	509.766	7.20%
Selling other goods	400.731	5.70%
Savings from abroad	83.411	1.20%
Other	95.756	1.40%
<b>Total</b>	<b>7.048.967</b>	<b>100%</b>

Source: Hepsen, Gayrimenkul Piyasaları ve Finansmanı: Türkiye'de Gayrimenkul Finansman Piyasalarının Gelişimi, 2010)

In Turkey, 35.6% of housing purchases are financed with cash, 27% with inheritances, 22.7% with borrowing, 7.9% through cooperatives, 2.7% with housing credit and 4.1% from other sources (Komurlu & Onel, 2007).

Besides providing housing funds from non-institutional sources, people apply various ways to produce dwellings in Turkey. Turkish people purchase houses from housing contractors with term loans, obtain houses through building cooperatives and also prefer to build their own houses (Hepsen, 2010; Coskun, 2011).

### 3.2.1. Build-Sell Contractors (Yap-sat)

In Turkey, build-sell contractors operate as private corporations. In this application, housing contractors (müteahhitler) are

house producers and they don't provide housing funds to households. They mostly produce apartments (Komurlu, 2006; Hepsen, 2010). In this system, initially, housing contractors obtain lands from land owners by purchasing or making agreements (Elliot, 2010). In this agreement, housing constructors offer number of completed houses to land owners at the end of the construction process. After the production of apartments, housing constructors sell homes for cash or in instalments to house purchasers. In instalments sales, consumers should pay large part of the total amount of the house price in advance. Therefore, dwellings built by housing constructors mostly are purchased by middle or upper income groups (Komurlu, 2006; Hepsen, 2010).

### **3.2.2. Building Cooperatives**

Building cooperatives are one of the important ways to purchase a house for people who do not have enough savings. In this system, sources for dwelling is obtained from monthly payments of cooperative members (Hepsen,2010).

In Turkey, the first building cooperative established in 1934 with the name of Ankara Bahcelievler Building Cooperative (Komurlu, 2006; Hepsen, 2010). This cooperative was supported by the government and the local municipality with huge credits and 150 dwellings were produced (Komurlu, 2006). After this application, building cooperatives started to provide home facilities to people who have monthly income. The monthly income and the monthly payment of cooperative members affected the production time of dwellings directly (Hepsen,2010).

Building cooperatives applied effective housing programs and home ownership rate of low income groups increased in Turkey. For this reason, government encouraged building cooperatives through some methods such as providing credit opportunity and tax advantages after 1980. Therefore, %20 of the total housing was constructed by building cooperatives during these years (Komurlu, 2006; Hepsen, 2010).

### **3.2.3. Shanty Houses (Gecekondu)**

This method is used by those who do not have the opportunity for housing via contractors and building cooperatives (Komurlu, 2006; Hepsen, 2010). In this method, people become homeowners by building houses on the land without permission. Generally, those lands are not available for zoning or they belong to the government or another person (Ozturk & Dogan, 2010; Coskun, 2011). The most important stage of this kind of house building is purchasing of construction materials (Datta & Jones, 1999). After purchasing construction materials and finding an empty land, people either build their houses by themselves or provide the labor force. These houses are called “shanty houses” (Erdogdu, 2010).

Shanty houses violate the zoning and building restrictions and they have unhealthy conditions with low living standards (Ozturk & Dogan, 2010). They are cheap and uncontrolled houses (Erdogdu, 2010).

In Turkey, shanty houses are a very important problem in big cities (Erdogdu, 2010). The industrialization process led to rapid

urbanization and migration from rural areas to large cities in 1950s (Turhan, 2008, p. 3). In this period, there was no housing finance structure to offer dwellings to low income persons in long term payment periods. Therefore, shanty houses and illegal constructions spread in metropolitan areas (Camur, 2007; Turhan, 2008). The number of shanty houses were 50.000 in 1955. However, the number increased sharply after this year and reached 2,5 million in 2002. It can be estimated that aproximetely 12,5 million people are living in these shanty houses (Turk & Altes, 2010). These houses were especially concentrated in industrial zones and public lands. They were spread all around Turkey with zoning amnesties which were enacted by the government (Erdogdu, 2010).

In order to solve the problem of these illegal buildings, government should make some initiatives for low income groups, such as providing cheap lands, construction materials and financing. Also, government should establish a system to coordinate these activities (Ozturk & Dogan, 2010). HDAT started urban renewal and transformation projects to prevent squatter buildings and illegal constructions in Turkey (Toplu Konut Idaresi Baskanligi, 2012).

In recent years, people started to use institutional housing finance corporations as a result of the stabilization of the economy and decreasing level of interest rates in Turkey. Institutional housing finance system applied in Turkey is examined below in detail.

### **3.3. INSTITUTIONAL STRUCTURE OF TURKISH HOUSING FINANCE SYSTEM**

An institutional housing finance system is required in order to meet housing needs of all income groups in Turkey as it is in many developed countries (Turhan, 2008).

Housing production was accomplished and supported through governmental or private organizations until 1990's in Turkey (Hepsen, 2010). These organizations are social security institutions such as Social Security Institution (SSI), Social Insurance Institution for Tradesmen and Craftsmen and Other Self Employed (Bag-Kur) and Army Aid Institution (OYAK), Housing Development Administration of Turkey (HDAT), Ministry of Resettlement and Construction, local organizations and commercial banks (Erol & Patel, 2005; Ozturk & Dogan, 2010). These organizations will be explained in the following parts of this study in detail.

#### **3.3.1. REAL ESTATE BANK**

In order to support housing production and provide housing loans, Real Estate and Orphan's Bank had been established in 1926 (Gurbuz, 2002; Komurlu, 2006; Ayan, 2011). This bank made important contributions for reconstruction of the country between 1925 and 1946. It provided housing credits for construction of new buildings and also supported the renewal of the existing buildings (Komurlu, 2006).

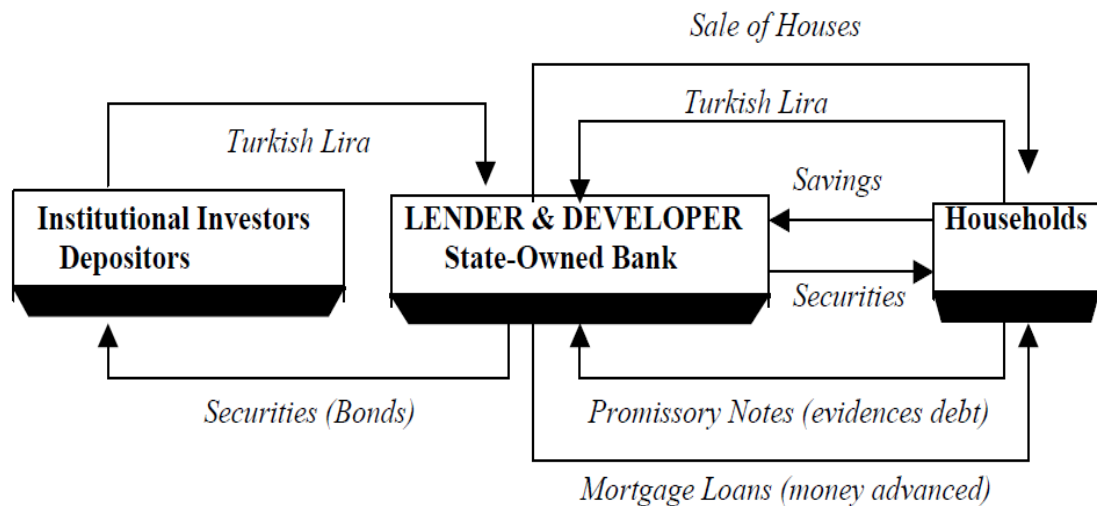


The status of Real Estate and Orphan's Bank had been changed and it was named as Real Estate Credit Bank in 1946 (Alkiser & Yurekli, 2004; Ayan, 2011). Real Estate Credit Bank had played an important role in housing sector after this date (Erol & Patel, 2004). This bank aimed to provide housing loans with low interest rates in long-term payment periods to households who open accounts with building saving system (Gurbuz, 2002). Therefore, it started to issue bonds to obtain long term funds (Erol & Patel, 2004). This bank ensured various housing credits as building saving loans, cooperative loans, and construction repair etc. Between 1946 and 1980, 400.000 housing units were produced with the credits of this bank (Komurlu, 2006).

Real Estate Credit Bank transferred its own housing funds to the Building Saving System (Gurbuz, 2002). This bank collected funds from households, pooled them in the Building Saving and provided these funds as housing loans to the right owners (Erol & Patel, 2004).

This bank mostly applied fixed interest rates to home loans with 15 years repayment periods. However, Real Estate Credit Bank changed its applications from time to time and arranged its interest rates and repayment periods (Gurbuz, 2002). General structure of this institution is shown in Figure 13.

Figure 13: General structure of Real Estate Bank's mortgage lending system



Source: Erol, I., & Patel, K. (2005). Default risk of Wage-Indexed Payment Mortgage in Turkey. *Journal of Housing Economics*, 271-293.

The status of Real Estate Credit Bank had been changed again and it was named as Real Estate Bank in 1988 (Alkiser & Yurekli, 2004). After this period, Real Estate Bank had been assumed as a leader institution for the housing sector of Turkey (Erol & Patel, 2005). Real Estate Bank accomplished massive housing projects, which were examples of successful projects for urbanization. These houses were sold with low interest rates and 10 years payment periods (Gurbuz, 2002).

Housing loans were provided by Real Estate Bank for the purchase of three kinds of housing units: for the ones constructed by Real Estate Bank, for those constructed by the joint venture construction businesses in which Real Estate Bank collaborated with builders or developers, and for the ones constructed by any builder in

the market (Erol & Patel, Housing Policy and Mortgage Finance in Turkey During the Late 1990s Inflationary Period, 2004, p. 104)

Real Estate Bank was an important housing finance institution and it made significant contribution to urbanization of Turkey with important projects since 1926. However, it was closed in 2001 as a result of the negative effects of economic crisis. All projects, assets and the shares of Real Estate Bank in the housing sector were transferred to Housing Development of Administration of Turkey (HDAT) in 2001 (Gurbuz, 2002; Ayan, 2011).

### **3.3.2. SOCIAL SECURITY ORGANIZATIONS**

Some institutions, whose tasks are not to take place in the building sector such as Social Security Institution (SSI), Social Insurance Institution for Tradesmen and Craftsmen and Other Self Employed (Bag-Kur) and Army Aid Institution (OYAK), provide housing credits to their members with low interest rates and various terms (Hepsen, 2010).

Social Security Institution (SSI) was established in 1946 and this institution started to provide housing loans in 1950 (Komurlu, 2006). Housing funds had been used by its members through Real Estate Credit Bank until 1962. SSI provided housing loans directly to its members between 1962 and 1984 (Komurlu, 2006; Hepsen, 2010).

SSI collected insurance premiums from its members and it transferred some of these premiums to cooperatives as housing loans (Komurlu, 2006). This institution financed 10% of total housing units

produced between 1962 and 1980 (Hepsen, 2010). SSI provided housing loans to its members and 230.000 housing units were bought by this way (Erol & Patel, 2004). After the Housing Act of 1984, SSI stopped extending housing loans (Hepsen, 2010).

Social Insurance Institution for Tradesmen and Craftsmen and Other Self Employed (Bag-Kur) started to provide housing loans to cooperatives in 1976 (Hepsen, 2010). Bag-Kur provided housing loans for 2.7% of produced housing units between 1976 and 1980 (Gurbuz, 2002; Aydin, 2006; Hepsen 2010). High inflation rates affected Bag-Kur's funds negatively and this institution stopped providing housing loans in 1980 (Aydin, 2006).

Army Aid Institution (OYAK) has been providing housing loans to its members since 1963. 15 year membership is required to take housing loans from this institution. OYAK ensured housing loans for 55.000 housing units between 1963 and 1992. OYAK still provides individual housing loan, cooperative housing loan and mass housing loan for houses constructed by Oyak Construction Company (Gurbuz, 2002; Aydin, 2006).

### **3.3.3. COMMERCIAL BANKS**

Among institutional housing finance corporations of Turkey, commercial banks are the main housing loans provider for the households. Share of housing loans provided by commercial banks have been increasing in last decade in Turkey due to the economic

normalization but this share is still low when compared to European Union countries and United States.

Between the years of 1958 and 1979, commercial banks except “Real Estate and Credit Bank”, “Teachers’ Bank” and “Foundations Bank” didn’t have right to give housing loans (Komurlu, 2006; Hepsen, 2010). Other commercial banks were also given right to operate in housing sector in 1979 (Aydin, 2006). However, until 1989, except Real Estate Bank, commercial banks didn’t pay any attention to providing housing loans in long term due to the low profit rates (Komurlu, 2006; Hepsen, 2010). The amount of mortgage loans in their asset values was quite low. After this year, some of the commercial banks started to provide housing loans as a consumer lending activity (Erol & Patel, 2004). The reason of this change was that commercial banks wanted to decrease risks and create new ways for resources within the framework of consumer credits. Commercial banks provided housing loans with short-term and monthly repayment policies. Also, interest rates of these loans were arranged according to civil servants’ wage increases and foreign exchange rates (Erol & Patel, 2005). During this period, only upper income groups applied for housing loans to commercial banks due to high interest rates and short repayment periods (Aydin, 2006).

In order to reduce inflation rates, stability programs have been applied since 1999. As a result of these policies, interest rates started to decrease and the volume of housing loans was increased. Therefore, commercial banks started to provide housing loans for middle and lower income groups. Economic stability has been achieved

in Turkey after 2002. As a result of this, inflation and nominal and real interest rates decreased and volume of housing loans offered by commercial banks have increased significantly (Hepsen, 2010).

Main financial source of commercial banks in Turkey is savings deposits. Large parts of housing funds are provided from these savings. These funds are ensured in long-term and they are used by commercial banks as long-term resources for housing loans (Aydin, 2006). Table 7 shows total amount of mortgage loans provided by commercial banks between 2003 and 2011 in Turkey.

Table 7: Total Amount and the Ratio of Housing Credit Supplied by Commercial Banks

Period		Disbursed Amount, Million TL					% House Credit in Total
		House Credit	Vehicle Credit	Consumer Credit	Other Credit	Total Credit	
2003	TP*	524	4,401	0	4,877	9,801	
	YP**	281	288	0	112	681	
	<b>Total</b>	<b>805</b>	<b>4,689</b>	<b>0</b>	<b>4,989</b>	<b>10,483</b>	<b>7.68%</b>
2004	TP	2,226	8,081	0	10,035	20,342	
	YP	487	375	0	140	1,002	
	<b>Total</b>	<b>2,713</b>	<b>8,457</b>	<b>0</b>	<b>10,175</b>	<b>21,344</b>	<b>12.71%</b>
2005	TP	12,794	6,755	15,233	4,292	39,074	
	YP	172	81	0	56	310	
	<b>Total</b>	<b>12,967</b>	<b>6,836</b>	<b>15,233</b>	<b>4,348</b>	<b>39,384</b>	<b>32.92%</b>
2006	TP	15,604	5,370	19,973	651	41,598	
	YP	0	3	2	0	6	
	<b>Total</b>	<b>15,604</b>	<b>5,373</b>	<b>19,975</b>	<b>652</b>	<b>41,604</b>	<b>37.50%</b>
2007	TP	15,533	5,170	27,533	1,603	49,839	
	YP	2	8	4	0	14	
	<b>Total</b>	<b>15,535</b>	<b>5,178</b>	<b>27,538</b>	<b>1,603</b>	<b>49,853</b>	<b>31.40%</b>
2008	TP	15,352	5,018	31,935	2,919	55,223	
	YP	8	11	3	0	23	
	<b>Total</b>	<b>15,360</b>	<b>5,029</b>	<b>31,938</b>	<b>2,919</b>	<b>55,246</b>	<b>27.80%</b>
2009	TP	21,205	4,858	39,919	122	66,104	
	YP	18	5	2	0	24	
	<b>Total</b>	<b>21,222</b>	<b>4,863</b>	<b>39,921</b>	<b>122</b>	<b>66,129</b>	<b>32.09%</b>
2010	TP	31,802	7,778	60,529	2,885	102,993	
	YP	19	3	4	0	26	
	<b>Total</b>	<b>31,821</b>	<b>7,780</b>	<b>60,532</b>	<b>2,885</b>	<b>103,019</b>	<b>30.88%</b>
2011	TP	29,739	8,033	69,401	5,631	112,805	
	YP	17	3	2	0	22	
	<b>Total</b>	<b>29,756</b>	<b>8,036</b>	<b>69,404</b>	<b>5,631</b>	<b>112,827</b>	<b>26.37%</b>

\*Turkish Currency

\*\*Foreign Currency

Source: The Banks Association of Turkey, (August 1, 2012). Retrieved from <http://www.tbb.org.tr/tr/>

Today, in order to meet the expectations of low income people, developed and developing countries mostly apply for public subsidies. Therefore, in order to provide dwellings for all income groups, housing finance system of Turkey is required to have a separate program which is supported by government subsidies.

#### **3.3.4. REAL ESTATE INVESTMENT TRUSTS (REITs)**

Real estate investment trusts (REITs) firstly started in the United States in the 1960s and they have experienced a rapid growth during 1990s in many countries. A real estate investment trust (REIT) is an investment company that provides funding for all kinds of real estate through its own equity or using the pooled capital of many investors. REITs collect money in the pool from investors through the public offering of the shares in the stock market and they make investment in real estate and real estate-backed securities (Compare and contrast: Worldwide Real Estate Investment Trust (REIT) Regimes, 2011). REITs distribute the revenues, which come from those portfolios, to investors. REITs manage portfolios comprised of real estates, real estate based projects and capital market instruments based on real estates. REITs can own many types of real estate-based capital market instruments, real estate-based projects, commercial real estate, buildings, land, hotels, hospitals and rental instruments (shopping centers, office and apartment buildings and warehouses) (Yukseler, 2009).

In Turkey, REITs were introduced for the first time with the regulations about the Tax Law and the Capital Market Law in 1992. Amendments to the Capital Market Law No. 3794 have enabled the



establishment of REITs. With the 22351 numbered “*Communiqué on Principles Regarding Real Estate Investment Trusts*” that published on Official Gazette on 22.07.1995, principles for the organization, operations, policies, rules and the public offering about the REITs were regulated (Ernst & Young, 2007). In the Article 4 of Communiqué, REITs were introduced as “*Capital market institutions that can invest in real estates, capital market instruments backed by real estates, real estate projects, rights and capital market instruments based on real estates, can establish ordinary partnerships to undertake certain projects and undertake other activities permitted by this Communiqué within the procedures and principles determined herein*” (Communiqué On Principles Regarding Real Estate Investment Companies).

In Turkey, REITs are established as joint-stock corporations and their name must include the phrase “real estate investment trust”. Their operations are regulated by Communiqué of the Capital Market Board (CMB). REITs are obliged to offer at least 25% their shares to the public and must be listed in the Istanbul Stock Exchange (ISE) within three months. They are exempt from 20% corporate income tax for all of their income (Compare and contrast:Worldwide Real Estate Investment Trust (REIT) Regimes, 2011).

According to Article 5 of the Communiqué, REITs can be established;

- a) *For a limited time to undertake a certain project,*
- b) *For a limited or unlimited time to invest in certain areas,*

*c) For a limited or unlimited time without any limitation of purpose (Communiqué On Principles Regarding Real Estate Investment Companies).*

REITs can be established in immediate establishment method. In addition, existing companies can turn into real estate investment companies by amending their Articles of Association in accordance with the procedures of this Communiqué and the Law. The transformation of institutions or companies to real estate investment companies must be approved by CMB (Communiqué On Principles Regarding Real Estate Investment Companies). Then application for establishment must be made to the Ministry of Industry and Trade. Following the Ministry's permission, the establishment of the investment trust is announced in the Turkish Commercial Registry (Capital Market Board).

In accordance with Article 23 on the Communiqué, REITs operate in the context of the following rules;

- a) Forming the company's portfolio, making changes in the portfolio when necessary, minimizing the investment risk through diversifying the company's portfolio, through monitoring developments about real estates, transactions based on real estates and securities, taking necessary precautions for the management of REIT's portfolio, conducting or having conducted research for preserving and increasing the portfolio value.*
- b) Investigating whether the assets in company's portfolio or assets planned to be included in the portfolio meet the*

*necessary legal conditions mentioned in this Communiqué, assuring the preparation of necessary reports in this regard.*

- c) Assuring the preparation of reports about determination of the value of assets in the portfolio,*
- d) if the portfolio is being managed by taking consultancy and/or portfolio management service from outside, establishing necessary organization in order to monitor compliance of operations of those institutions to provisions of the legislation and the contract.*
- e) Undertaking other duties assigned by this Communiqué and permitted activities (Communiqué On Principles Regarding Real Estate Investment Companies).*

According to the Article 24 of the Communiqué, REITs cannot;

- a) Collect deposits as described in Banking Law or engage in operations and transactions that will give the same result as deposit collection.*
- b) Engage in commercial, industrial or agricultural activities other than the transactions permitted by the Communiqué,*
- c) Engage in capital market activities other than its own portfolio management, limited to the investment areas permitted by the Communiqué,*
- d) Be involved in the construction of real estate and cannot recruit personnel and equipment for this purpose,*
- e) Operate hotels, hospitals, shopping centers, business centers, commercial parks, commercial warehouses, residential sites, supermarkets, and similar types of real estate commercially and employ personnel for this purpose. However, if real estates exist in the portfolio for the purpose of generating rental*

*revenue, companies can provide the security, cleaning, general management and similar services to tenants for such real estates or independent parts thereof or can sign contracts with operating firms for the performance of these services.*

- f) *Provide services by its personnel to individuals and institutions for project development, project control, financial feasibility and follow-ups of legal permissions, except for the projects related to the portfolio or will be related to the portfolio* (Communiqué On Principles Regarding Real Estate Investment Companies).

In Turkey, REITs have a legal personality. The shares of the REITs must be issued in return for cash and must be quoted, traded and priced at a stock exchange (Capital Market Board). REITs provide opportunity for small investors to make investment in large scale projects and earn revenue with their limited funds through the stock market (Compare and contrast:Worldwide Real Estate Investment Trust (REIT) Regimes, 2011).

The first corporations in the sector are Alarko REIT and Vakif REIT. The first public offering of the shares of a real estate investment trust has been realized in 1997 (Ernst & Young, 2007). Today, stocks of 24 REITs are being quoted in ISE in Turkey and their activities are regulated by the CMB, the regulatory and supervisory board in Turkey (Capital Market Board). List of the REITs are shown in Table 8.

Table 8: List and Capital of REITs in Turkey

Title of Company	Registered Capital (TL)	Paid Capital (TL)	in Total Assets (TL) (30/09/2012)	Number of Shares	Price per share (TL)
1. Akfen REIT	1.000.000.000	184.000.000	1.141.353.201	46,064,000	1.60
2. Akmerkez REIT	75.000.000	37.264.000	168.544.674	1,162,570	21.95
3. Alarko REIT	20.000.000	10.650.794	229.618.736	3,650,130	22.25
4. Atakule REIT	200.000.000	84.000.000	226.861.734	13,197,400	1.35
5. Avrasya REIT	480.000.000	72.000.000	80.315.898	56,338,300	0.48
6. Dođuş REIT	500.000.000	93.780.000	198.881.088	7,891,630	1.60
7. EGS REIT	75.000.000	50.000.000	135.782.059	33,797,500	0.27
8. Emlak Konut REIT	4.000.000.000	2.500.000.000	7.646.681.000	536,704,000	2.96
9. İdealist REIT	200.000.000	10.000.000	9.285.536	2,499,250	2.50
10. İş REIT	2.000.000.000	600.000.000	1.304.177.001	294,386,000	1.50
11. Kiler REIT	1.400.000.000	124.000.000	475.466.995	39,784,900	1.85
12. Martı REIT	200.000.000	110.000.000	214.865.538	52,924,900	0.51
13. Nurol REIT	40.000.000	40.000.000	495.599.558	8,847,750	8.10
14. Özak REIT	300.000.000	157.000.000	884.325.867	5,418,690	1.75
15. Özderici REIT	250.000.000	100.000.000	130.603.489	32,886,600	0.85
16. Pera REIT	250.000.000	89.100.000	218.858.789	44,822,000	0.56
17. Reysaş REIT	500.000.000	190.000.000	424.098.406	53,644,100	0.74
18. Saf REIT	2.000.000.000	886.601.669	722.145.312	319,585,000	0.97
19. Sinpaş REIT	1.000.000.000	600.000.000	1.922.038.715	241,793,000	1.36
20. Torunlar REIT	1.000.000.000	500.000.000	4.374.928.000	69,272,500	2.89
21. TSKB REIT	200.000.000	150.000.000	347.636.323	43,408,800	0.76
22. Vakıf REIT	300.000.000	105.000.000	192.847.398	10,064,200	5.10
23. Yapı Kredi Koray REIT	100.000.000	40.000.000	105.371.865	17,619,700	1.32
24. Yeşil REIT	1.000.000.000	235.115.706	1.110.289.869	63.571.500	0.66

Source: (Kamuyu Aydınlatma Platformu, 10/12/2012)

In Turkey, REITs make investment to real estate projects which have high profit potential. Thus, REITs finance large projects such as commercial business centers, shopping malls and luxury real estate projects in big cities because of the high demand for these projects. In recent years, REITs have trend to produce luxury housing projects which are located around shopping malls and commercial business centers. This kind of projects contributes the development of the housing sector and the Turkish economy (Vakıf Gayrimenkul).

REITs must deal primarily with portfolio management. They are authorized to manage their own portfolios and may employ portfolio managers. They can also get portfolio management or investment advisory services from authorized investment advisers (Capital Market Board). In addition, REITs are obliged to select a Real Estate Appraisal Company (REAC). These are the real estate valuation companies which are operating in accordance with the “Communiqué on Principles Regarding Pertaining to Companies Offering Valuation Services According to Capital Markets Legislation and the Listing Rules of these Companies to be Used by the Board”, Serial No: VIII, No: 35, published in the Official Gazette dated 12 August 2001 No:24491. REACs are offering REITs such services as assessing current sale and rent values of the real estates, real estate projects and rights backed by real estates which are included in the REITs’ portfolio in accordance with a contract signed with the REITs (Communiqué On Principles Regarding Real Estate Investment Companies).

REACs are joint stock corporations and they have to employ at least 5 appraisers. REACs are important institutions for the transparency of REITs. These companies aim to make sure that portfolios of REITs are valued correctly. Thus, appraisal companies make analyses about the portfolios of REITs according to generally accepted international principles of valuation. Portfolio valuations and all other transactions of REITs are written in appraisal reports. REITs determine the appraisal company from the REACs included in the list of the CMB and there must not be direct or indirect relationships between the parties in terms of employment, capital or commerce and must not be blood or marital relationship even in third degree including

the spouse (Capital Market Board). REITs can obtain services from the same REAC up to 5 consecutive years. In order to obtain services from the same REAC after this 5 years period, at least 2 years must pass (Capital Market Board).

Turkey has got an attractive real estate sector for domestic and international investors in recent years. Therefore, REITs may play an important role in attracting more international investors by realizing high quality and reliable real estate projects in international standards.

### 3.3.5. LEGAL FRAMEWORK OF MORTGAGE SYSTEM IN TURKEY

In Turkey, in order to create an institutional and effective housing finance system and develop housing market, the 5582 numbered law was accepted in Parliament on 21 February 2007 and it was published in the Official Gazette No. 26454 on 6 March 2007 (<http://www.tbmm.gov.tr/kanunlar/k5582.html>). Housing finance system, which is known as “mortgage finance system” in the world, has been introduced in Turkey with this law. According to Article 12 of Mortgage Law No. 5582, *“housing finance is extension of loans to consumers to purchase houses, leasing of houses to the consumers through financial leasing, and extension of loans to consumers where such loans are secured by the houses that the consumer owns. Loans extended to refinance the loans described above in this context are also included in the housing finance”* (Law No.2499 CAPITAL MARKET LAW, 2007).

Individuals and primary and secondary market institutions, which operate within the extent of housing finance, have been defined with mortgage law. The main player of the mortgage system in Turkey defined as follows: Public organizations that organize the mortgage system and institutions (Capital Market Board of Turkey and the Banking Regulation and Supervision Agency), banks, financial leasing companies, consumer finance companies, loan provider institutions, construction companies, insurance companies, real estate appraisers, investment companies and credit users (<http://www.tbmm.gov.tr/kanunlar/k5582.html>).

Certain laws, which are relevant with Mortgage Law, have been modified by the 5582 numbered Mortgage Law. These are Execution and Bankruptcy Law (No. 2004), Capital Market Law (No. 2499), Consumer Protection Law (No. 4077), Financial Leasing Law (No. 3226), Mass Housing Act (No. 2985), Income Tax Law (No. 193), Expenditure Tax Law (No. 6802), Act of Fees (No. 492), Value Added Tax Law (No. 3065) and Stamp Tax Law (No. 488) (<http://www.tbmm.gov.tr/kanunlar/k5582.html>). The following arrangements are made within the context of the new mortgage law:

*Execution and Bankruptcy Law (No. 2004):* Before this Law, the foreclosure time for a default property was quite lengthy. Amendments to the Execution and Bankruptcy Law (No. 2004) provided the opportunity to shorten the follow-up process of mortgage loans through foreclosure. For example, if any mortgage loan borrower couldn't make mortgage loan payments in two consecutive months, the lending institution has right to sell the property after waiting for one-



month period. This law has great importance in the functioning of the new mortgage system because it accelerated the liquidation process of the property. Otherwise, a long follow-up for execution period would prevent the development of execution in the secondary market (Teker, 2007; <http://www.tbmm.gov.tr/kanunlar/k5582.html>).

*Capital Market Law (No. 2499):* According to Article 39/A of Mortgage Law, mortgage finance corporations are classified as capital market institutions, which can be established solely for the purpose of taking over, managing and transferring the receivables arising from housing finance and providing financial resources by means of taking receivables arising from housing finance as collateral (Law No.2499 CAPITAL MARKET LAW, 2007).

According to Article 7 of Mortgage Law, mortgage capital market instruments are classified as mortgage covered bonds, mortgage backed securities, capital market instruments other than stocks that are issued by mortgage finance corporations and other capital market instruments collateralized by the receivables arising from housing finance (Law No.2499 CAPITAL MARKET LAW, 2007).

*Consumer Protection Law (No. 4077):* Mortgage loan lenders are allowed to extend variable and adjustable rate mortgages with the amendment to the Consumer Protection Law. The other amendment is that lender institution must give information about all aspects of the law and consumers are protected against the downside of specific procedures of the law (Teker, 2007).

*Financial Leasing Law (No. 3226):* With the amendment to the Financial Leasing Law, financial leasing and consumer finance companies, which are found eligible to operate in housing finance by the Banking Regulation and Supervision Agency, are enabled to provide mortgage loans (<http://www.tbmm.gov.tr/kanunlar/k5582.html>). As a result of this law, number of lending institutions increased in the housing sector. With the increased number of lending institutions, households can take mortgage loans with more economic conditions.

*Mass Housing Act (No. 2985):* With the amendment on the Mass Housing Act Article 27, encumbered or unencumbered receivables, which resulted from the sale of properties by HDAT, can be taken over or transferred by housing finance institutions (<http://www.tbmm.gov.tr/kanunlar/k5582.html>).

*Tax Incentives:* In order to support development of both primary and secondary mortgage markets, certain tax incentives are introduced within the context of the new mortgage law. It is aimed to decrease the demand for informal housing and stimulate the economy while increasing the number and quality of housing production by tax incentives (Teker, 2007).

*Income Tax Law (No. 193):* Dividend and interest income of capital market instruments, which are issued by mortgage finance companies and housing finance institutions, have been exempted from income tax (<http://www.tbmm.gov.tr/kanunlar/k5582.html>).

*Expenditure Tax Law (No. 6802):* All transactions made by mortgage finance companies and housing finance institutions within the

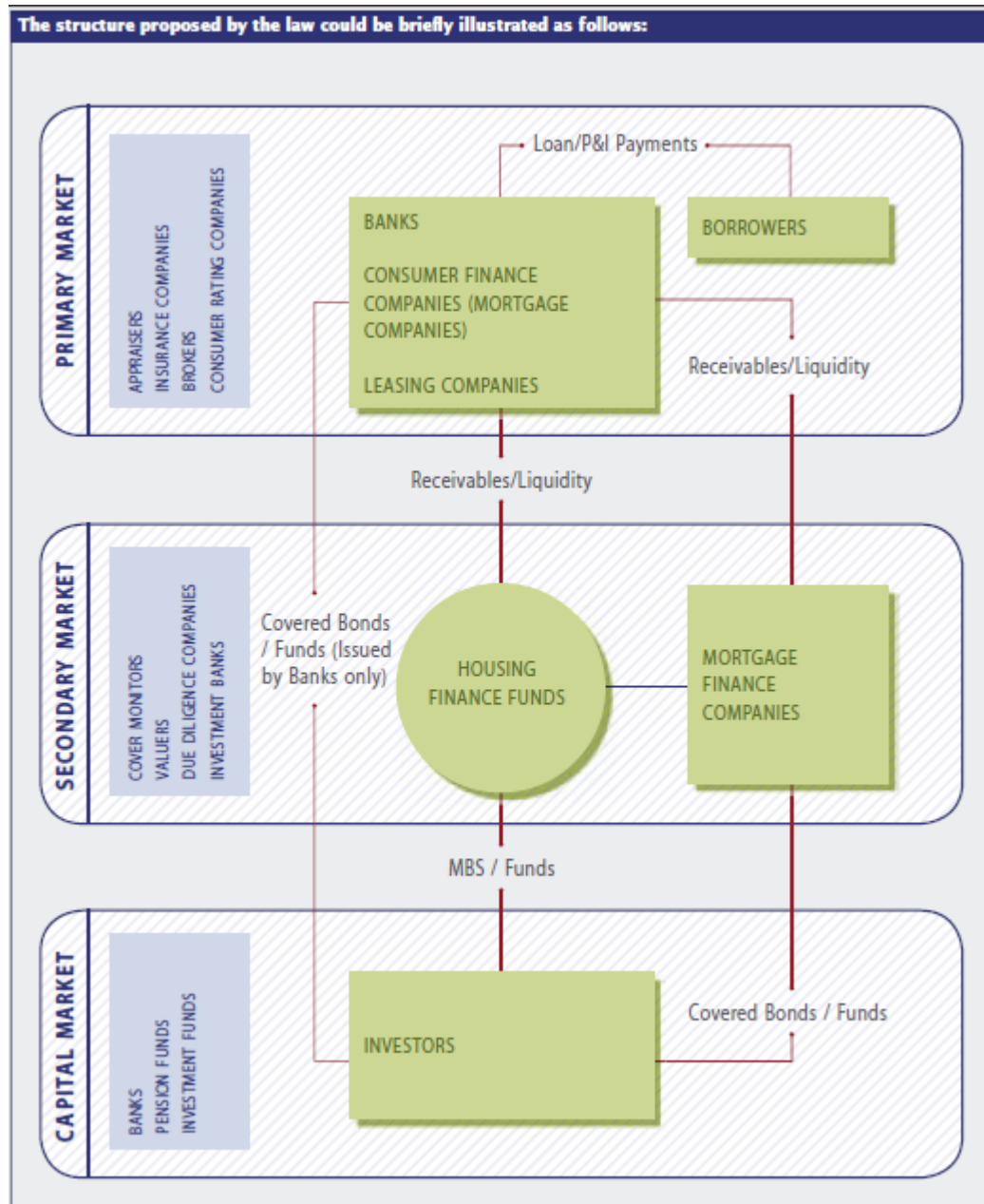
scope of housing finance are exempted from expenditure tax (<http://www.tbmm.gov.tr/kanunlar/k5582.html>).

*Act of Fees (No. 492):* According to Act of Fees, hypothec transactions made by mortgage finance companies and housing finance institutions, which are in the scope of housing finance, are exempted from fees (<http://www.tbmm.gov.tr/kanunlar/k5582.html>).

*Stamp Tax Law (No. 488):* Papers issued by mortgage finance companies and housing finance institutions within the scope of housing finance transactions are exempted from the stamp duty according to the Stamp Tax Law (<http://www.tbmm.gov.tr/kanunlar/k5582.html>).

*Functioning of the new Housing Finance System:* Functioning of the new mortgage finance system may be explained briefly as follows: The system consists of two stages. In the first stage, mortgage institutions establish a hypothec on properties, which are purchased by consumers, in return of mortgage loans until the end of loan payments or mortgage institutions apply financial leasing system and consumers will get ownership of the property at the end of the lease payments. In the second stage, mortgage institutions sell their existing mortgages in the secondary markets to the financial associations or other investors in order to supply new funds for housing credits, facilitate the flow of funds and increase investment options of investors.

Figure 14: The New Turkish Mortgage Structure



Source: Teker, B. (2007). *The New Turkish Mortgage Law*. Turkey Real Estate Year Book.

The main problem relating to housing finance in Turkey is the lack of regular and long-term funds, which can be obtained from institutional sources. New Mortgage Law has potential of facilitating

the purchasing of housing units with long term payment plans by households through institutional channels. Mortgage system will contribute the increasing quality of housing construction and planned urban development. Moreover, housing ownership and housing exchange (buy-sell) will be registered through this system with an effective way. New insurance companies, which are really critical for institutionalization and development of secondary market in housing sector, have been established. Moreover, development of the sector will contribute the development of other sectors which are relevant with the housing sector. This will directly affect the increasing of employment rate in the country.

### **3.3.5. THE CASE STUDIES**

This section presents case studies about Housing Development Administration of Turkey (HDAT) and KIPTAS.

#### **A-HOUSING DEVELOPMENT ADMINISTRATION OF TURKEY (HDAT)**

##### **Overview**

In Turkey, housing production was mostly realized with individual projects until 1970s. However, in the 1970s, as a solution of continuous demand for land and housing, mass housing production has gained importance instead of the single building construction (Turk & Altes, 2010). Mass housing is defined as a large number of housing units that were constructed with social and physical infrastructure (Komurlu & Onel, 2007). In this period, in order to encourage planned urbanization, mass housing production was decided to be constructed

by state enterprises (Eskinat, 2012). In this direction, new arrangements were applied and new institutions were established by government towards the improvement of the housing sector (Camur, 2007).

In order to increase funds for housing sector and realize mass housing projects, Public Housing Act (Law No: 2487) was passed by the parliament in 1981 (Camur, 2007; Eskinat, 2012). Subsequently, Mass Housing Act (Law No: 2985) was substituted and an autonomous Mass Housing Fund had been formed by government on March 2, 1984 (Komurlu & Onel, 2007; Yukseler, 2009; Turk & Altes, 2010; Ayan, 2011). In the same year, the Housing Development and Public Participation Administration had been established as a finance institution in 1984 with Act No: 2983 (Camur, 2007; Toplu Konut Idaresi Baskanligi, 2012). The aim in the establishment of the Administration was to provide adequate number of housing units in the country with the environmental design and within a specific financial frame as well as to contribute to the prevention of unemployment, and to the flourishing of the economy through encouraging the housing sector (Erol & Patel, 2004; Yetgin, 2007). Mass Housing Act had provided Housing Development and Public Participation Administration the opportunity to work as an autonomous and flexible institution (Ayan, 2011). Also, Mass Housing Fund provided continuous and sufficient resources for mass housing projects of HDAT (Turk & Altes, 2010; Eskinat, 2012).

Duties of the Housing Development Administration were defined with Act No: 2985 in 1984 as follows (Eskinat, 2012; Toplu Konut Idaresi Baskanligi, 2012):

- *Issuing internal and external bonds and any kind of stocks with or without state guarantee.*
- *Deciding upon receiving credits from foreign resources to be used for the expenditure relating to its scope of activity upon approval of the Undersecretariat of Treasury.*
- *Taking actions aimed at ensuring participation of the banks in financing housing; providing banks with credit to this end; and establishing procedures relevant to enforcement of this provision.*
- *Supporting the industry related to housing construction or those which are involved in this field; establishing companies related with housing sector or participating in those that have already been established.*
- *Subcontracting any research, projects and commitments, where deemed necessary.*
- *Fulfilling duties imposed by laws and other legislation (Toplu Konut Idaresi Baskanligi, 2012).*

The main goals expected to be achieved with these duties was to increase the number of available housing for low income groups and to eliminate urbanization problems at national level (Camur, 2007; Elliot, 2010).

The Housing Development and Public Participation Administration had operated as two separate entities until 1990. These two different enterprises were transformed into Housing Development Administration (HDAT) in 1990 with Governmental Decree No: 412 and 414 (Camur, 2007; Yukseler, 2009; Eskinat, 2012; Toplu Konut Idaresi Baskanligi, 2012).

HDAT obtained required sources for housing applications from the Public Housing Fund until 1993. In this way, the number of housing production increased as well as the efficiency and quality increased in housing sector (Gurbuz, 2002). However, Public Housing Fund was included into the general budget in 1993 and resources of HDAT diminished from 1993 onwards, and finally stopped in 2001 (Turk & Altes, 2010). HDAT became dependent on allocations from the general budget (Yukseler, 2009; Elliot, 2010; Eskinat, 2012). Consequently, housing activities of HDAT had slowed down until 2002 (Camur, 2007). Eskinat (2012) mentioned that between the years of 1984-1993, HDAT provided housing loans for 877.984 housing units through the Public Housing Funds, but between 1993 and 1999, HDAT provided housing loans for only 252.117 housing units. Thus, housing requirements of low and middle income groups couldn't be provided entirely (Camur, 2007; Elliot 2010). After involvement in the general budget, Public Housing Fund lost its importance and it repealed entirely in 2001 under the Law No: 4684 (Yukseler, 2009; Elliot, 2010; Eskinat, 2012).

Housing programs followed by HDAT could be evaluated in two main periods: 1984-2002 and after 2002. Between 1984 and 2002,



HDAT was an important housing finance institution in Turkey that provided resources from public housing funds. During these years, HDAT determined and implemented housing policies as a state enterprise. Approximately, 950.000 housing units had been constructed by the credit support of HDAT until 2002. At the same time, HDAT constructed 43.145 dwellings on its own lands (Erdogdu, 2010; Coskun, 2011).

### ***Applications of HDAT after 2002***

The new government set up in 2002 became a turning point for HDAT whose efficiency decreased at the beginning of 2000's (Camur, 2007; Eskinat, 2012). AKP government applied Emergency Action Plan for Housing and Urban Development in January 2003 and increased authority and resources of HDAT for housing programs (Camur, 2007; Turk & Altes, 2010; Eskinat, 2012; Toplu Konut Idaresi Baskanligi, 2012). In the period right after the establishment of AKP government, some changes were made in the priorities of issues related to the housing and urbanization problems and the need for the administration to take part in every facet of the housing and urbanization problems became clear (Camur, 2007). In 2003, HDAT's scope of duties was extended from tourism to small industrial undertakings, education and health system (Turk & Altes, 2010). By this way, HDAT's role in solving the problems related to housing and urbanization was adjusted to a more efficient conduct (Eskinat, 2012). Within this frame, with the changes applied through 06/08/2003 dated, 4966 numbered law, new duties are added to the ones defined by 2985 numbered law of Housing Development Administration of Turkey (Eskinat, 2012; Toplu Konut Idaresi Baskanligi, 2012). These duties are;

- *Establishing companies related with housing sector or participating in those that have already been established.*
- *Granting individual and mass housing credits; granting credits for projects intended for improvement of rural architecture, transformation of squatter areas, preservation and restoration of historical and regional architecture; and making interest subsidies for all such credits, where deemed necessary.*
- *Developing projects both in Turkey and abroad directly or through the agency's participations; carrying out or appointing others to carry out applications for housing, infrastructure and social facilities.*
- *Implementing profit-oriented projects or appointing others to implement profit-oriented projects to ensure sources to the benefit of the Administration.*
- *Building, promoting and supporting construction of housing units as well as social facilities and infrastructures in locations where disasters take place, if considered necessary (Toplu Konut Idaresi Başkanlığı, 2012).*

In addition to these, in order to provide adequate housing construction and planned urbanization and also prevent excessive increases of land prices, all the duties and the authority of the Urban Land Office have been transferred to HDAT in 2004, with the Law no: 5273. Based on this legal arrangement, HDAT added 64.5 million m<sup>2</sup> lands to its portfolio (Camur, 2007; Turk & Altes, 2010; Elliot, 2010; Eskinat, 2012). After 2002, building lands and plots which transferred

to HDAT have become the most important financial sources for HDAT (Yukseler, 2009).

When it is compared with other institutions, HDAT has more advantages and privileges in the housing production. Because, HDAT has the right to use public lands without charge. Moreover, in these lands, HDAT has authority to make construction plan without permission from municipalities. Also, HDAT can increase construction densities as it wishes (Turk & Altes, 2010; Elliot, 2010).

### **A.1. Housing Activities and Projects of HDAT**

HDAT carries out numerous and diversified housing projects within the scope of planned urbanization and housing production program throughout Turkey which is shown in detail on Table 9. HDAT has produced 560.000 housing units since 2003. These housing units have different construction phases and they are offered different income groups of people. The HDAT focuses on planning, building, financing, promoting and constructing of dwelling units under different methods (Corporate Profile of TOKI, 2011):

- Housing production on its own lands for the low and middle income people
- Renovation of squatter areas in cooperation with municipalities
- Resource Development Projects based on a Revenue Sharing Model
- Housing production in the disaster areas
- Creation of producer village settlements to prevent rural-to-urban migration
- Immigrant Housing Applications (Corporate Profile of TOKI, 2011)

Table 9: Housing Projects of HDAT in 81 provinces of Turkey from 2003 onwards

Provinces	Total Projects	Total Housing Units	Low Income	Middle & Low Income	Other Housing Units	Disaster Housing	Resource Development	EKGYO applications	Agricultural Village Housing	Squatter Housing Transformation
Adana	46	12896	1860	8120	1084				210	1622
Adiyaman	26	3663	755	2708	200					
Afyon	32	4169	1316	2604					249	
Agri	29	4114	1228	1948	14	804				120
Aksaray	12	3464	1856	1608						
Amasya	15	3030	968	1920					142	
Ankara	200	66767	25154	22108	1327	737	4916			12525
Antalya	21	3440	864	1732	60					784
Ardahan	11	1154	500	640	14					
Artvin	8	312		280	32					
Aydin	13	1346	284	920	142					
Balikesir	33	6900	2626	3022	1252					
Bartın	3	890		890						
Batman	21	2752		1280	74	1202			196	
Bayburt	10	728	128	564						36
Bilecik	14	3076	180	1418	1356				122	
Bingöl	36	4113	388	1428		2208			89	
Bitlis	28	3640	1908	1540	192					
Bolu	26	4024	2484	1012	528					
Burdur	15	2096	120	1008	968					
Bursa	50	19141	6458	9769	770	102				2042
Canakkale	16	2597	1424	748	425					
Cankiri	19	2411	768	1078		63			222	280
Corum	16	3488	848	2640						
Denizli	24	4980	2070	520		408				1982
Diyarbakir	40	10240	3636	5332						1272
Duzce	21	5063	2210	2853						
Edirne	20	7268	1482	3324	2322					130
Elazig	25	7139	1754	2850	160	2375				
Erzincan	37	7251	720	2386	1672				1344	1129
Erzurum	40	5282	692	1976	324	711			119	1460
Eskisehir	25	9207	3785	3690	192		448			1092
Gaziantep	25	10154	1940	4536	1060					2618
Giresun	14	1148	722	326	100					
Gumushane	120	2540	180	840	1168	292			60	
Hakkari	17	1066	258	464	100	244				
Hatay	24	4219	1894	2094	231					
Igdir	8	612	288	224	20					80
Isparta	24	3173	1400	1668					105	
Icel(Mersin)	26	3718		2998						720
Istanbul	202	119047	13331	21609	6322	114	26343	44731		6597
Izmir	43	13946	2878	3174		252		3754		3888
K.maras	19	2305	1204	900		82			119	
Karabuk	11	2280	180	864						1236
Karaman	16	2768	1308	1208					252	
Kars	18	3730	1870	1108						752
Kastamonu	10	1696		1548		148				
Kayseri	31	12454	4928	6342	944				240	
Kirikkale	19	2820	436	2384						
Kirklareli	5	1548	456		288			804		
Kirsehir	19	2912	412	1624	760				116	
Kilis	5	1152	288	864						
Kocaeli	36	14161	3834	2626	556		818	4865		1462
Konya	60	14078	4546	7980					212	1340
Kutahya	48	7558	3154	2548	928	928				
Malatya	32	6886	958	4976	904	48				
Manisa	26	3434	2502	804	48	80				
Mardin	18	3304	928	240	692				4	1440
Mugla	13	1535	300	1108					127	
Mus	10	448	80	144	80	144				
Nevsehir	17	4858		2132					126	2600
Nigde	21	4278	1616	1960	630	72				
Ordu	15	4378	1176	3202						
Osmaniye	17	1798	834	964						
Rize	18	1415	39	736		640				
Sakarya	32	6634	2194	3452	988					
Samsun	23	6986	1388	2622						2976
Siirt	10	869	320	324					225	
Sinop	4	350		272	4	74				
Sivas	31	4904	580	3684	72	208			40	320
Sanliurfa	32	5457	384	4042		96			935	
Sirnak	16	1616	528	268	820					
Tekirdag	17	7420	2060	132	2568		1160	1500		
Tokat	19	3146	974	2140		32				
Trabzon	50	9474	1782	2678	4026	380				608
Tunceli	20	1214	302	308	400	204				
Usak	12	2172	696	1260						216
Van	79	24122	1426	4304	610	17704			78	
Yalova	9	1836		1280	556					
Yozgat	25	4474	1068	2680	666				60	
Zonguldak	18	1498	890	608						
<b>TOTAL</b>	<b>2226</b>	<b>560232</b>	<b>136998</b>	<b>208165</b>	<b>38659</b>	<b>30352</b>	<b>33685</b>	<b>55654</b>	<b>5392</b>	<b>51327</b>

Source: (Toplu Konut Idaresi Baskanligi, 2012)

*\*Housing production on its own lands for the low and middle income groups*

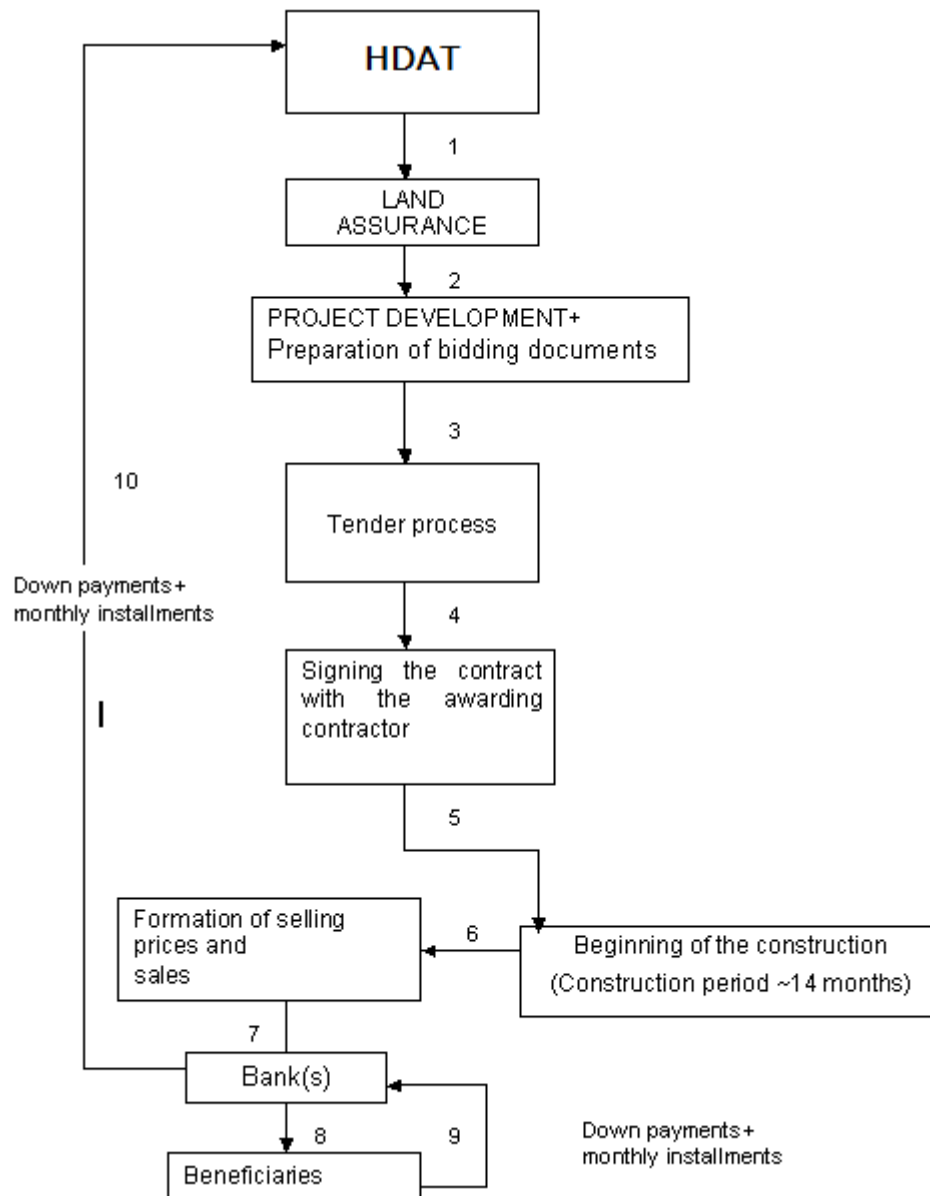
The middle and lower income groups don't have sufficient resources to allocate for housing due to the low income level. Moreover, limitations of housing finance alternatives are making hard to own dwellings for these income groups (Elliot, 2010). Finding a solution to the problem of housing affordability for middle and lower income groups is one of the main objectives of HDAT in accordance with the regulations (Coskun, 2011). Between 1984 and 2003, HDAT's strategy was supporting social housing projects with credit facilities, but HDAT has started to the direct provision of social housing since 2003 (Turk & Altes, 2010). Thus, HDAT has developed various housing projects on its own lands and also developed financing models and payment plans for these projects (Elliot, 2010). These projects are carried by construction firms with tender method. In the tender method, social housing projects are completed in 18 to 24 months by contractors. After construction of these dwellings by constructors, HDAT sells these houses with long-term payment plans (Turk & Altes, 2010; Corporate Profile of TOKI , 2011).

In these housing projects, HDAT defines the sale price of the dwellings depending on the cost. Depending upon the financial strength of the target group, 10 to 25% of the housing price is taken in advance and the rest of the payment is extended to monthly instalments changing between 75-240 months. In the housing applications between 55-65 square meters, which appeal to the low-income group, no deposit is taken (Elliot, 2010). After the delivery of the housing, house price is taken in instalments in up to 20 years time period with at least

100 Liras instalment payments. 65-87 meter square houses constructed for the low-income group are offered to sale with 6.000 Liras deposit and with 300 Liras instalments after housing delivery in 15 years time (Elliot, 2010; Toplu Konut Idaresi Baskanligi, 2012). To hold the possibility of instalment payments at the highest level in the system, HDAT determines monthly payments as close as possible to the amount of rent the homeowner could normally afford to pay and the delivery of the ownership document is carried out at the end of the whole payment (Elliot, 2010; Corporate Profile of TOKI , 2011). During this process, HDAT conducts the customer services in its own management structure, and in case of any need, it gets help from banks, and the contractor and consultant firms. Also, houses are insured by contractor for the construction phase and by HDAT after the construction (Building Turkey of Future, 2011).

Direct provision of social housing for low income groups all over the Turkey with affordable prices has become HDATs one of the main strategy. Infrastructure, technical and financial programs of HDAT for low income groups would be the model for other type of housing producers.

Figure 15: The Process of Housing Production for the Low & Middle Income People



Source: *Toplu Konut Idaresi Başkanlığı*. (2012). Retrieved from <http://www.toki.gov.tr>

*\*Renovation of squatter areas in cooperation with municipalities*

The number of squatter houses increased from 50.000 in 1955 to 2.5 million in 2002 (Turk & Altes, 2010). It can be estimated that approximately 12.5 million or 25,5% of urban population is living in squatter houses in Turkey. This shows that significant number of housing units is lacking from social and technical infrastructure (Turk & Altes, 2010; Coskun, 2011). Coskun (2011) claimed that 60% of the existing housing stock of Turkey should be renewed. In addition, Elliot (2010) reported that one-third of the urban housing stocks are below minimum standards and have poor quality. In order to solve this problem within the scope of urban transformation, HDAT has planned and developed housing and financing projects since 2004. In these projects, HDAT demolishes existing structures in slum areas and constructs new housing units instead of them. These dwellings offer modern life standards and infrastructure facilities (Elliot, 2010). In Turkey, partnership models of urban regeneration applications mainly operate on the basis of HDAT-Municipality cooperation. HDAT and Municipalities continue to renovation of old and unusable housing stock into legal, liveable and modern housing units (Tuhral, 2005; Yetgin, 2007).

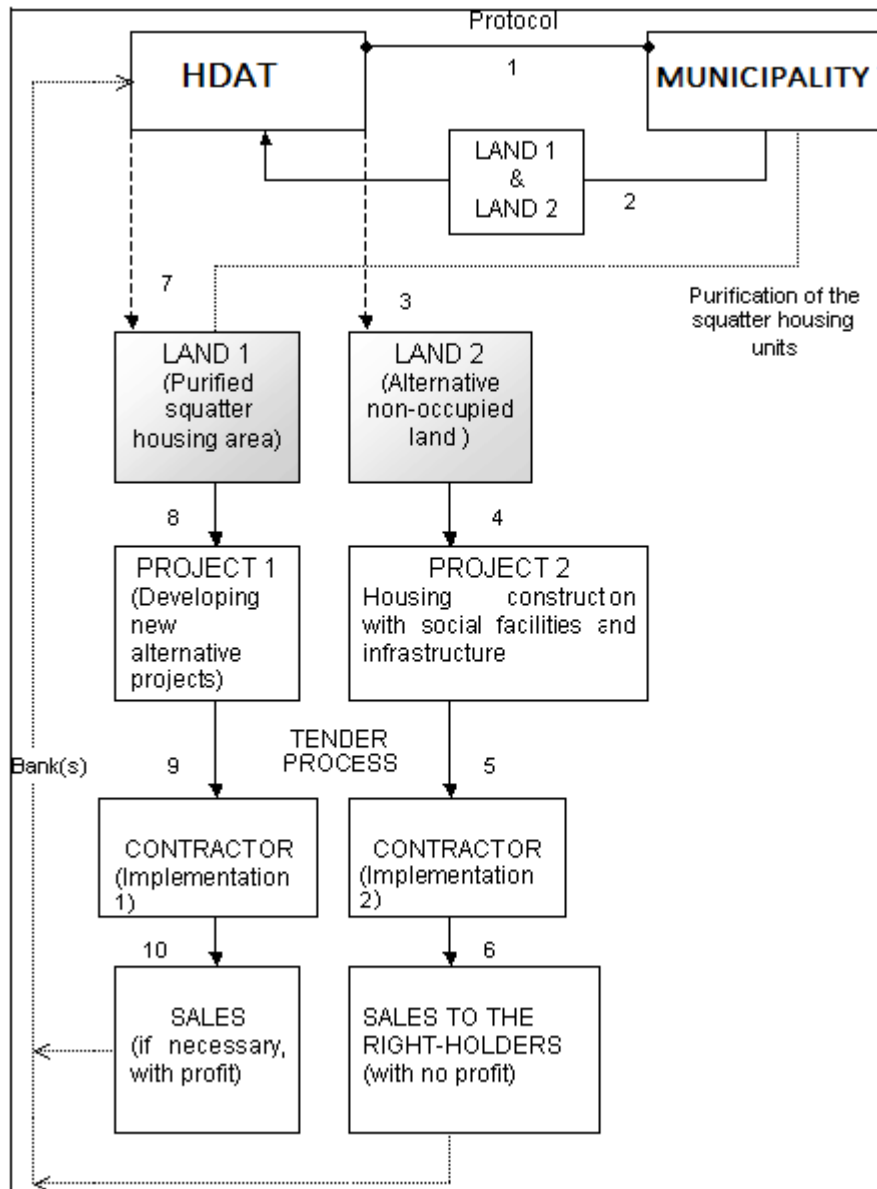
In general, the urban transformation projects are high cost projects and aim to renew slum areas in terms of socio-cultural, economical and physical manners (Mutman & Turgut, 2011). Normally, in these projects, prompting public-private cooperation or applying for external sources is required. However, HDAT finances large part of



these urban renewal projects in Turkey (Kentlesme Surasi 2009: Kentsel Donusum, Konut ve Arsa Politikolari 3, 2009).

In urban transformation process, HDAT initially makes collaboration with local municipality for the assistance about a slum area. Homeowners who live in that area should voluntarily participate for project. Within the context of the projects, the discharged shanty town areas have been transformed into sample settlement or recreational areas and in the meantime, citizens who live in those areas have been given the opportunity to live in modern and planned areas with solid infrastructure and social equipments. After construction is completed, people who live previously in that area can own a housing unit only paying cost of the home with cash or they can make payments during a 180 months period (Corporate Profile of TOKI , 2011:48).

Figure 16: The Process of Renovation of Squatter Areas/Urban Renewal



Source: *Toplu Konut Idaresi Başkanlığı*. (2012). Retrieved from <http://www.toki.gov.tr>

*\* Resource Development Projects based on a Revenue Sharing Model*

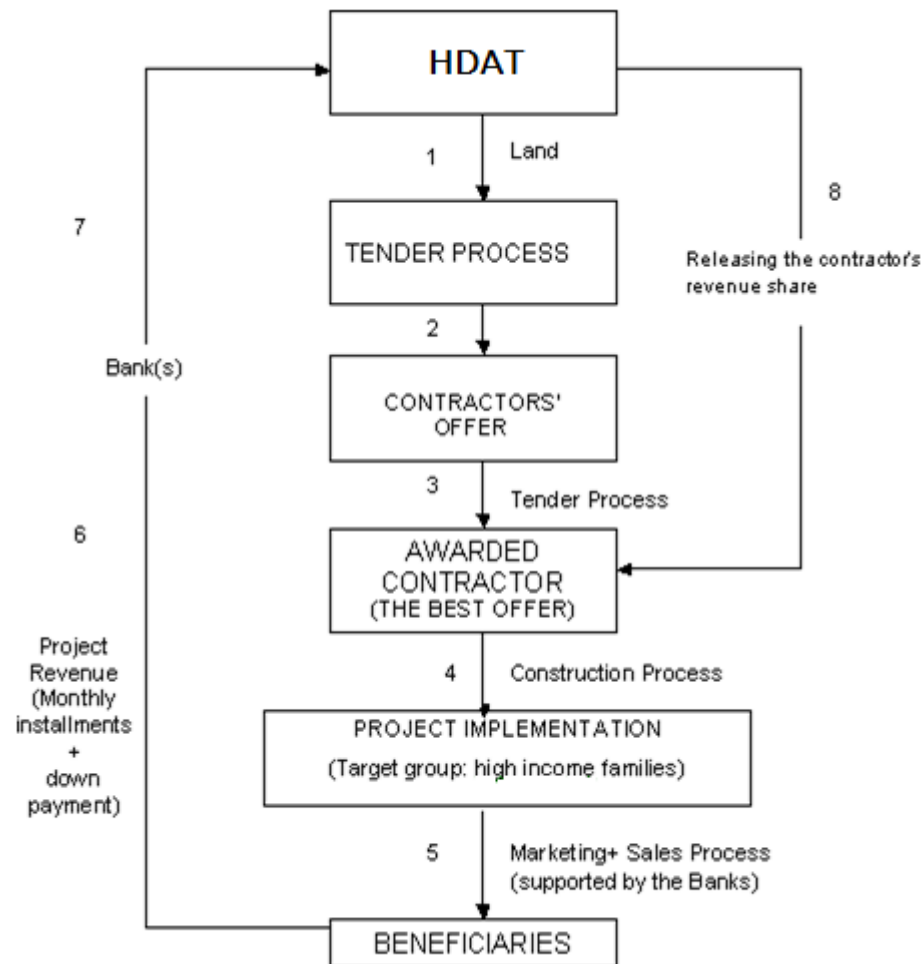
As mentioned above, Public Housing Fund was included in the general budget in 1993. HDAT became dependent on allocations from the general budget (Turk, Altes, 2010; Eskinat, 2012) and resources of HDAT diminished in the period 1993 –2001. Then, with an amendment (Law No. 4966) about the housing sector in 2003, HDAT was given authority to make profit from projects and developments in order to provide resources for its activities (Turk & Altes, 2010). HDAT then developed a new model: “resource development projects based on a revenue sharing model”. HDAT has valuable building lands in its portfolio that was transferred from Real Estate Bank and Undersecretariat of Treasury without charge (Yukseler, 2009). HDAT has started to realize construction of luxury dwellings through private companies by revenue sharing method on those lands for the purpose of creating sources to finance construction of its social housing projects (Tuhral, 2005; Camur, 2007; Elliot, 2010; Turk & Altes, 2010). These prestigious housing projects are produced for upper income groups (Coskun, 2011). Resource development projects have been fulfilled in large provinces such as Istanbul, Ankara, and Izmir because there is a high demand in these provinces for luxurious housing units (Tuhral, 2005). Sales price of these dwellings are defined according to market conditions (Corporate Profile of TOKI, 2011).

In resource development projects, HDAT is the land owner and it has collaboration with private sector contractors (Elliot, 2010).

These housing contractor firms are chosen with open bidding method and the contractor which offers the highest share to the HDAT is preferred. Contractor firm has responsibility for all investment of housing project and housing production (Elliot, 2010; Turk & Altes, 2010). Housing contractor firms have advantages on these projects because land for the project comes from HDAT's portfolio and it is public land. Therefore, contractor firms are excluded from huge cost of lands and challenging legal procedures (Elliot, 2010). Accordingly, these projects are completed in the shortest possible time by contractor firms. After the completion of housing projects, profits are shared between HDAT and the housing contractor firms (Turk & Altes, 2010).

Resource development projects of HDAT have the same housing finance method with "Build and Sell" method. However, when compared with housing contractors who use this method, HDAT has favourable position as a land owner and it evaluates the advantage of free lands very efficiently for this method. Thus, HDAT realizes prestigious housing projects on these lands through private enterprises and sell them at high prices. Furthermore, owing to this method, HDAT is excluded from the search for financing for its projects.

Figure 17: The Process of Resource Development Projects of HDAT based on Revenue Sharing Model



Source: *Toplu Konut Idaresi Başkanlığı*. (2012). Retrieved from <http://www.toki.gov.tr>

Revenue sharing method provided important capital for housing activities of HDAT and it generates its own resources. While HDAT meets housing requirements of Turkey, at the same time it provides resources for future housing projects. Instead of using central government budget in its activities, this method seems as innovative and a bright idea for the public sector (Coskun, 2011).

*\*Housing production in the disaster areas,*

Within the scope of the legal arrangements of the government, HDAT become the authority to obtain free lands to build dwellings in the disaster areas. In order to close housing deficit of disaster areas, HDAT provides housing loans for disaster victims and cooperatives. Moreover, HDAT has authority to borrow loans from foreign countries and establish provinces in disaster areas. In the condition of natural disaster, HDAT helps disaster areas in cooperation with the Ministry of Public Works and Settlements. In the last eight years, HDAT facilitated 18.000 housing units in the disaster areas in 28 cities. Besides, HDAT builds schools, police stations, infrastructure and mosques in disaster areas (Corporate Profile of TOKI, 2011). Dwellings, which produced in disaster areas by HDAT, have modern and safest construction techniques that are good example for housing sector (Yetgin, 2007).

*\*Creation of producer village settlements to prevent rural-to-urban migration;*

As a result of migration from rural areas to large cities, between the years of 1950 and 2000, the urbanization level has increased from 18.5 percent to 65.6 percent (Turk & Altes, 2010). In order to prevent rural-to-urban migration, HDAT tries to provide same facilities of cities to rural areas such as modern infrastructure, adequate housing units and social and economic facilities within the scope of village settlements applications. HDAT also targets to stimulate agricultural production and livestock activities in rural areas (Tuhral, 2005; Elliot, 2010; Corporate Profile of TOKI , 2011)

### *\* Immigrant Housing Applications*

As a consequence of political reasons, Turkey accepts migration of people as refugees and provides housing for them. Based on this, in August 2004, HDAT became the authority to manage housing projects, construction and selection of eligible people for housing. HDAT has constructed 23.495 housing units in 17 provinces and 23 settlement areas since 2004. Moreover, if the immigrants establish a cooperative, HDAT provides lands for them. Within this framework, HDAT provided land to 3.975 immigrants via 27 cooperatives. HDAT offers immigrant housing units with 2000 TL down payment and 180 months payment term without interest (Toplu Konut Idaresi Baskanligi, 2012). In addition to dwellings, HDAT fulfilled the other requirements of refugees (Toplu Konut Idaresi Baskanligi, 2012).

### *\*Renovation of Historical and Cultural Buildings,*

There are many historical and cultural buildings in Turkey and they have been damaged by natural disasters and other factors. Therefore, HDAT extended credit facilities for maintenance, repair and restoration of historical and cultural heritages. These loans have annual fixed interest rate and maturity term is 10 years. In order to improve and preserve Turkey's remarkable architectural, historical and cultural heritage, HDAT has extended 28,5 million TL for 371 projects all over the Turkey. Also, HDAT undertake the restoration of some projects itself (Corporate Profile of TOKI, 2011).

Table 10: Number of Annual Renovation Projects and Loan Amounts

Period	Number of Projects	Number of Completed Projects	Amount of Allocated Loan (TL)	Amount of Loan Paid (TL)
<b>2005</b>	16	16	1,175,446.56	1,175,446.56
<b>2006</b>	51	48	3,652,416.44	3,493,041.44
<b>2007</b>	34	31	2,657,813.66	2,549,013.66
<b>2008</b>	55	50	4,111,633.66	3,947,243.66
<b>2009</b>	93	60	6,731,911.44	5,169,306.23
<b>2010</b>	49	23	3,862,324.89	2,408,336.56
<b>2011</b>	73	15	6,399,830.85	2,664,530.58
<b>TOTAL</b>	<b>371</b>	<b>243</b>	<b>28,591,877.99</b>	<b>21,432,418.69</b>

Source: (Toplu Konut Idaresi Baskanligi, 2012)

*\*Credit support to individuals, cooperatives and municipalities*

HDAT provides long term housing construction loans for the housing cooperatives, municipalities, individuals and the members of families who have died while serving the Turkish State since its establishment. Maturity of these loans is ranging from 5-10 years. The terms of the loans are specified in regulations issued by HDAT. The applications for loans are accepted and evaluated by the banks which have branches throughout the country (Corporate Profile of TOKI, 2011).

*\*Land Development*

In 2003, HDAT's scope of duties and powers was extended. Then, in order to provide adequate housing construction and planned urbanization and also prevent excessive increases of land prices, all the duties and the authority of the Urban Land Office have been transferred to HDAT. After this transfer, HDAT has become sole public authority for housing production and land development. Active participation of HDAT in housing production and land development



provided important power to solve emerging problems in housing sector (Camur, 2007; Yukseler, 2009; Turk & Altes, 2010; Elliot, 2010; Eskinat, 2012).

Table 11: Transferred Lands to HDAT without Charge since 12.12.2003

Years	Numbers	Area (square meters)	Value of Land (TL)
2003	30	962,152.14	7,619,987
2004	1235	18,996,006.89	161,129,022
2005	513	20,895,439.00	283,254,295
2006	726	40,134,247.00	1,223,374,009
2007	474	17,723,787.88	761,449,238
2008	622	28,189,760.56	1,378,556,871
<b>Total</b>	<b>3601</b>	<b>126,901,393.47</b>	<b>3,815,483,425</b>

Source: *Kentlesme Surasi 2009:Kentsel Donusum, Konut ve Arsa Politikolari 3*. Ankara: Bayindirlik ve Iskan Bakanligi.

Moreover, HDAT is able to provide lands, which belong to Treasury of Turkish Republic, free of charge in housing production areas. It is an important solution for the high prices of serviced urban plots on the legal land market. HDAT also develops proper building lands for industry, education, health, tourism and public investments (Coskun, 2011; Toplu Konut Idaresi Baskanligi, 2012).

*\*Numbers for Housing Activities of HDAT*

HDAT constructed 43.145 housing units between the years of 1984–2002. In comparison to this number, HDAT thrived after 2003 and it has significant growth trend with the number of 556.000 housing units in 81 provinces between the years 2003–2012 (Toplu Konut Idaresi Baskanligi, 2012). These houses are allocated as follows;

- ✓ 220.000 housing units provided to the low and middle income groups
- ✓ 142.000 housing units provided to the poor families
- ✓ 67.000 housing units provided within urban renewal projects
- ✓ 5.400 housing units provided within agricultural village projects
- ✓ 37.000 houses provided in disaster areas
- ✓ 84.000 housing units constructed within resource development projects (Toplu Konut Idaresi Baskanligi, 2012)

According to numbers, %85 of dwellings was constructed as social housing units and only %15 of dwellings was constructed within the framework of resource development implementations.

HDAT's goal is not to be an organization that solves housing problems with its own production. It produces %5-10 of housing needs of housing sector annually, but HDAT goals to identify barriers of housing sector and eliminate them for increasing efficiency in housing sector of Turkey ( Yetgin, 2007; Coskun, 2011).

#### *Other projects of HDAT*

In addition to building housing provision, HDAT has begun to undertake public dwelling investments in return for public institutions' lands in recent years (Yukseler, 2009; Elliot, 2010). In this regard, HDAT constructed 686 schools (with 20.000 classrooms), 715 gyms, 38 libraries, 407 trade centres, 138 hospitals, 88 local healthcare buildings, 319 mosques, 67 dormitories (for 16.876 people), 27 orphanage (227 buildings), 21 unhandicapped health centres (240

buildings), 7 rehabilitation centres, 5 nursing homes, 2 day-care centres, 7 society centres, 37 domestic security personnel shift dormitories, 250 police stations, 1 ministry service building and 1 stadium (Corporate Profile of TOKI, 2011).

Table 12: Non-residential investments of HDAT (until 2011)

<b>Project Type</b>	<b>Numbers</b>	<b>Explanation</b>
Schools	841	18.841 classrooms
Gyms	869	
Library	41	
Trade Center	466	
Hospital	194	
Local Healthcare	91	
Mosque	442	
Dormitory	104	For 35.818 people
Orphanage	27	245 Buildings
Unhandicapped Life Center	20	191 Buildings
Rehabilitation Center	7	
Day-Care Center	2	
Society Center	7	
Nursing Home	5	
Police Station	250	
Stadium	1	
Ministry Service Building	1	
Domestic Security Personnel Shift Dormitory	37	

Source: (Corporate Profile of TOKI, 2011)

In addition to these, in the scope of landscaping, HDAT carried out approximately 17 million square meters green area design and 3,7 million tree planting and 5,6 million brier landscaping projects (Corporate Profile of TOKI, 2011).

HDAT has realized a total of 3.000 separate tenders and it has worked with 600 building contractors and it has created job opportunities in 30 different sectors which work in conjunction with housing sector. Moreover, in the scope of HDAT projects, more than 800.000 people are recruited directly or indirectly (Corporate Profile of TOKI, 2011).

## A.2. Parthnerships of HDAT

### *Emlak Konut Real Estate Investment Trust-REIT (EGYO)*

Ankara İmar Ltd. Şti. established in 1953 and it was merged with TİMLO (Türkiye İnşaat Malzemeleri Ltd.) in 1987 and named Construction and Development Company (İnşaat ve İmar A.Ş.) as a subsidiary of Turkish Real Estate Bank (Türkiye Emlak Bankası). On 26.12.1990, Construction and Development Company and its subsidiary Real Estate-Building Company (Emlak Yapı A.Ş.) were merged with a decree of the Council of Ministers and Real Estate Housing Inc. (Emlak Konut A.Ş.) has been established (Camur, 2007; <http://www.emlakgyo.com.tr/Projeler/>). Real Estate Housing Inc. had operated as a subsidiary of Real Estate Bank until 2001. Later, Real Estate Bank was closed on 14.12.2001 and all projects, assets, Real Estate Housing Inc. and the shares of the Real Estate Bank in the housing sector were transferred to HDAT. 39% share of Emlak Konut Real Estate Investment Trust, which is one of the participations of the Real Estate Bank, has been transferred to HDAT. Later, it was turned to Real Estate Investment Company (Emlak Gayrimenkul Yatırım Ortaklığı A.Ş.) on 29.07.2002. In 2006, it has been named as Real Estate Housing Investment Company (Emlak Konut Gayrimenkul

Yatırım Ortaklığı A.Ş.) (Camur, 2007; <http://www.emlakgyo.com.tr/Projeler/>). This company is the largest real estate investment trust (REIT) in Turkey and it has one of the valuable real estate portfolios and stocks in Istanbul (Corporate Profile of TOKI, 2011).

The main objectives and activities of the company are operating all kinds of construction, subcontracting, contracting and engineering services for housing projects. This company also has construction materials trading activity (Corporate Profile of TOKI, 2011).

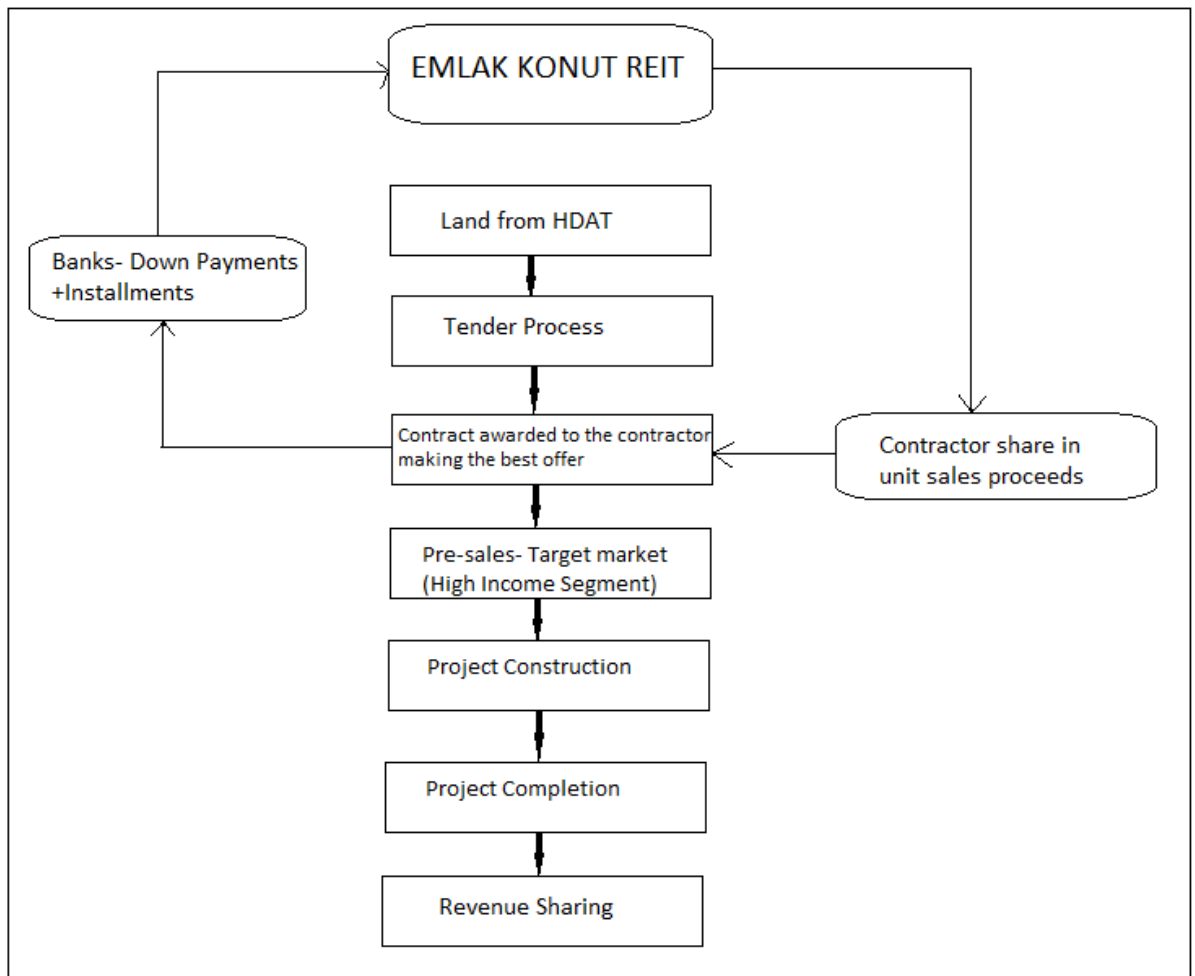
The equity of Emlak Konut REIT was increased to 2,5 billion TL on 17 August 2010 and 625 million TL worth of equity (25% of the total equity) was offered to public on December 2, 2010 on Istanbul Stock Exchange. The total amount of demand after final demand collection process for the stocks of the Emlak Konut REIT was one of the top 5 public offering transactions in Turkey. As a result of the huge demand from both the domestic and foreign investors, Emlak Konut REIT obtained 1.05 billion TL from public offering (Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş., 2012). The reason behind such a high demand for the stocks of the company is the confidence for HDAT and Emlak Konut REIT in the housing sector (Camur, 2007). In order to maintain the leading position in the sector, Emlak Konut REIT has used the all proceeds from the public offering for developing new housing projects.

Emlak Konut REIT develops its projects under two models; Revenue Sharing Model and Public Procurement Law Model (Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş., 2012).

## Revenue Sharing Model

Revenue Sharing Model is a unique model that provides high revenues and profitability for Emlak Konut REIT. In this model, housing projects are offered for mostly the middle-upper and upper-income groups. Emlak Konut REIT develops revenue sharing projects along with the private sector, particularly in Thracian region and in metropolises such as Istanbul, Ankara and Izmir (Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş., 2012).

Figure 18: Emlak Konut REIT Revenue Sharing Projects Flow



Source: (Emlak Konut:A differentiated business model – Initiate with OW, 2012)

In the process of this model:

- ✓ Emlak Konut REIT develops housing projects on the lands purchased from HDAT and other sources and also lands obtained from Real Estate Bank in 2001.
- ✓ In the tender process, which is performed in accordance with the regulations of Emlak Konut REIT, the contractor makes an offer about the share of income which going to be given to REIT and total sales revenue.
- ✓ Emlak Konut REIT assigns the project to the contractor, who offers the highest share of income in the tender.
- ✓ The contractor is responsible for entire process of the development, design, sales and marketing of the project.
- ✓ Revenues from the project are shared between the Emlak Konut REIT and the contractor according to rates determined in the contract.
- ✓ The contractor gives guarantee for a minimum revenue level to the Emlak Konut REIT. This revenue is equal to or more than the land value, which is determined by experts before the project started (Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş., 2012).

This model enables Emlak Konut REIT to focus on larger projects, because, in this model, the contractor takes over the large part of the risk about the development process of the housing project. Thus, Emlak Konut REIT has low risk about the financing and development of the projects.

HDAT produces high quality social dwelling units with the income provided by Emlak Konut REIT and improves planned development in the urban areas (Camur, 2007).

### **Public Procurement Law Model**

HDAT has more than 50% share in the Emlak Konut REIT and for this reason, Emlak Konut REIT operates within the scope of Public Procurement Act (No: 4734). Public Procurement Law Model is the traditional model compared to the Revenue Sharing Model. The purpose of this model is providing housing units for low and middle income groups of people and rehabilitation of constructions (Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş., 2012).

In the process of this model:

- ✓ Emlak Konut REIT develops housing projects on the lands purchased from HDAT and other sources and also lands obtained from Real Estate Bank.
- ✓ Emlak Konut REIT completes technical inspections and researches before tender and applies for construction permit.
- ✓ The contractor is selected by tender method in accordance with the Public Procurement Law. Emlak Konut REIT assigns project to contractor who offers the lowest price.
- ✓ Milestone payments are made by Emlak Konut REIT to the contractor in stages depending on the progress of the project.



- ✓ Emlak Konut REIT is responsible for the entire process of development of the project and entire cost of the project.
- ✓ Emlak Konut REIT is responsible for the sales and marketing of produced housing units.
- ✓ All of the proceeds from the sale of the independent units belong to Emlak Konut REIT (Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş., 2012).

Emlak Konut REIT has carried out 13 Public Procurement Law Model housing projects since 2004. 7 of these housing projects were completed and construction process continues for the remaining 6 projects. 3.577 housing units constructed in the completed 7 housing projects and 5.710 housing units are going to be produced in the remaining 6 housing projects. The names of the ongoing housing projects are Tuzla Emlak Konutları 1, Tuzla Emlak Konutları 2, Gebze Emlak Konutları 2, Gebze Emlak Konutları 1, Körfezkent 2 and Alemdağ Emlak Konutları (Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş., 2012). The number of the projects is low under this model because the full responsibility of the projects from financing to completion belongs to Emlak Konut REIT (Emlak Konut: A differentiated business model – Initiate with OW, 2012).

Figure 19: Key Differences between the Revenue Sharing Model and the Public Procurement Model

	<b>Revenue Sharing Model</b>	<b>Public Procurement Model</b>
<b>Sourcing of land</b>	HDAT, Emlak Bank, third parties	HDAT, Emlak Bank, third parties
<b>Tender process</b>	Within the tender process held under the internal regulations of Emlak, the contractor proposes a revenue share ratio together with an estimate of the total revenues the project will generate. The highest bidder is awarded the project	Within the tender process, held under the Public Procurement Law, bids are submitted for the cost of construction, the lowest bidder is awarded the contract
<b>Contractor obligations</b>	Whole process (financing to sale)	Construction
<b>Financing</b>	Contractor	Emlak Konut REIT
<b>Emlak Konut REIT's obligations</b>	Land, approval of design and technical control	Overall responsibility for project
<b>Risk allocation</b>	Mainly the contractor	Emlak Konut REIT
<b>Sales</b>	Contractor and Emlak Konut REIT	Emlak Konut REIT
<b>Revenues</b>	Shared with contractor, minimum guaranteed to Emlak Konut REIT	Fully attributable to Emlak Konut REIT

Source: (Emlak Konut: A differentiated business model – Initiate with OW, 2012)

Emlak Konut REIT has carried out many housing projects as shown in Table 13, under these two models since it was founded.

Table 13: Number of Completed and Continuing Housing Projects by Emlak Konut REIT

COMPLETED PROJECTS	NUMBERS		CONTINUOUS PROJECTS	NUMBERS
Atasehir residence	180		1istanbul	1188
Avrupa konutlari ispartakule 1	385		Alemdag emlak konutlari	1192
Avrupa konutlari ispartakule 2	330		Avrupa konutlari atakent 3	2300
Avrupa konutlari-tem	2824		Batisehir	3148
Bizim evler 2	520		Bizim evler 3	676
Burgaz kent	752		Bizim evler 4	780
Dream city cerkezkoy	204		Dumankaya miks	657
Emlak konut mavisehir evleri	696		Elite city	591
Emlak konut pelikan sitesi	536		Evora istanbul	4304
Ergene vadisi	1296		Gebze emlak konutlari 1	524
Ispartakule	6000		Gebze emlak konutlari 2	818
Ideal-ist kent	883		Korfezkent 2	791
Kent plus atasehir	2044		Mavisehir modern	316
Kent plus mimarsinan	660		My towerland	420
Korfezkent	3500		My world europe	3060
Missistanbul evleri	936		Park yasam mavisehir	521
My town ispartakule	583		Sarphan finans bank	517
My world atasehir	3636		Soyak evostor	1000
Novus residence	285		Soyak park aparts	1121
Selimpasa emlak konutlari	820		Spradon vadi	1037
Soyak mavisehir	1568		Studyo 24	500
Spradon quartz	1045		Sehrizar konaklari	208
Uphill court atasehir	1742		Tuzla emlak konutlari 1	666
Yildizkent	1160		Tuzla emlak konutlari 2	1679
			Unikonut 1 ispartakule	361
			Varyap meridian	1500
<b>TOTAL</b>	<b>32585</b>		<b>TOTAL</b>	<b>29875</b>

Source: *Emlak Konut GYO*. (n.d.). Retrieved November 7, 2012, from <http://www.emlakgyo.com.tr/Projeler/>

Emlak Konut REIT has 20 ongoing real estate projects for each income group in Istanbul, Tekirdag, Kirklareli, Izmir and Kocaeli provinces. It has 1,7 million m<sup>2</sup> tendered land and 4,5 million m<sup>2</sup> lands which haven't been tendered yet in Istanbul, Adana, Izmir, Istanbul and Ankara (Toplu Konut Idaresi Baskanligi, 2012).

*Emlak Real Estate Marketing, Construction, Project Management and Trading Co. Inc. (EPPY)*

Emlak Real Estate Marketing, Construction, Project Management and Trading Co. Inc. (EPPY) was established in 1980 and continued its activities as a subsidiary of the Real Estate Bank until 2001. After the abolishment of the Real Estate Bank, 49% shares of EPPY were transferred to HDAT in April 2001. (Toplu Konut Idaresi Başkanlığı, 2012; Emlak Pazarlama İnşaat Proje Yönetimi ve Ticaret A.Ş., 2012). At present, EPPY is a corporation of the HDAT and it offers variety of services that include real estate marketing services, engineering services, trading and consultancy services, project management, controlling, contracting and administration services for housing units (Corporate Profile of TOKI , 2011).

EPPY takes an investor role from the beginning to the final stage of the developed projects. These projects can be on the lands which are purchased by EPPY or obtained from land owners on revenue sharing base. In order to realize large projects, huge investment is required in the real estate and construction sector. EPPY provides required funds from domestic and foreign investors. EPPY realizes new projects with establishing strategic partnerships and co-operations with foreign investors who willing to invest in the sector (Emlak Pazarlama İnşaat Proje Yönetimi ve Ticaret A.Ş., 2012).

## Activity Fields

The activities of the EPPY are collected under five main titles (Emlak Pazarlama Insaat Proje Yonetimi ve Ticaret A.Ş, 2012).

EPPY develops modern, reliable and qualitative projects in the inland and abroad. On the project development stage, EPPY takes into consideration customer satisfaction with qualified housing projects. Before the construction stage EPPY chooses reliable contractors which can use latest technologies. During the construction of projects, EPPY uses a comprehensive project management and controlling system which is a precondition in achieving the desired targets about quality standards, the budget and time goals. EPPY provides exploitation, maintenance and management services for realized projects such as landscape maintenance works, security and guarding services, environment maintenance, electricity, waste water, fresh water, natural gas mains services and building estate management. EPPY also provides pricing, sales, delivery and post-delivery services in accordance with customer requirements for realized projects (Emlak Pazarlama Insaat Proje Yonetimi ve Ticaret A.Ş, 2012).

EPPY aims to contribute to the growth and development of the real estate sector by creating modern, reliable and qualitative projects in the inland and abroad by cooperating with domestic and foreign capital groups.

*Metropolitan Municipality Construction, Real Estate and Project Co. Inc. (TOBAŞ)*

Metropolitan Municipality Construction, Real Estate and Project Co. Inc. (TOBAŞ) was established by HDAT and Greater Municipality of Ankara in 2004 to realize the project of redevelopment of North Ankara Entrance. TOBAŞ Company offers professional consultancy services for urban renewal projects. The company makes surveys in the project areas and after that it provides recommendations about planning, general construction and infrastructure of the projects during construction phase and post-construction. The company is owned by HDAT and Greater Municipality of Ankara with equal shares of 49,9% (Camur, 2007; Corporate Profile of TOKI , 2011).

*Real Estate Appraisal Valution Co. Inc. (GEDAŞ)*

Real Estate Appraisal Valution Co. Inc. (GEDAŞ) was established in 06.04.1994. Within the framework of the abolishment of the Real Estate Bank, 49% share of GEDAŞ was transferred to HDAT on 14.12.2001. This corporation offers a variety of real estate valuation and appraisal services. They are basically involved with movables, such as properties, machinery, equipment, ships, etc., in addition to immovable properties, such as vacant lots, building, plant values and rental prices (Corporate Profile of TOKI, 2011).

*Vakif Real Estate Investment Trust Co. Inc. (VAKIF REIT)*

Vakif Real Estate Investment Trust (Vakif REIT) is the first Real Estate Investment Trust of Turkey and it was established on January

16, 1996. Stocks of the Vakif REIT were offered to the public on December 24, 1996 (Vakif Gayrimenkul).

General Directorate of Land Office was switched off in 2004 (Law No: 5273) and all the duties and the authorities of this institution have been transferred to HDAT (Camur, 2007; Corporate Profile of TOKI, 2011). General Directorate of Land Office's share in Vakif Real Estate Investment Company was transferred to HDAT. HDAT's share in the company is 14%. The company offers expertise services in the real estate market. It prepares diversified and low risk portfolios for the housing investments (Corporate Profile of TOKI, 2011).

Vakif REIT has an important place in the real estate sector in terms of capital, portfolio size and market values. After the last capital increase carried out in 2012, total capital of the Vakif REIT reached to 105 million TL (Vakif Gayrimenkul).

#### *Vakıf Construction, Restoration and Trade Co. Inc.*

In 2005, HDAT purchased 50% share of Vakif Construction, Restoration and Trade Company to participate in the activities about renovation of historical and cultural buildings. This company provides facilities about planning, design, re-design management and controlling for Turkey's architectural heritage (Camur, 2007; Corporate Profile of TOKI, 2011).

#### *Boğaziçi Housing Services Administration Management and Trade. Inc..*

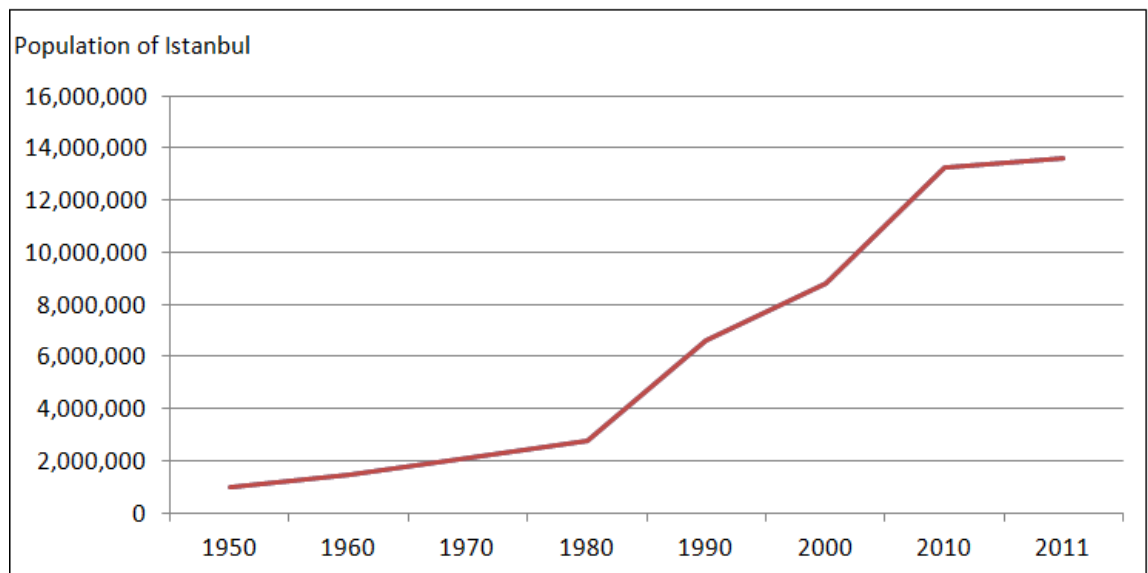
This company was established by KIPTAS in 1997 to operate on the management of housing estates that were constructed by HDAT

and KIPTAS in Istanbul. The company is owned by Istanbul Public Housing Corporation (KIPTAS) by 96% and HDAT by 1% (Toplu Konut Idaresi Baskanligi, 2012).

## B- ISTANBUL PUBLIC HOUSING CORPORATION (KIPTAS)

Since the industrialization process of Turkey, people have migrated from rural areas to big cities especially to Istanbul due to the good facilities for job, income, education, health and social activities (Elliot, 2010). Population growth in Istanbul has been very rapid and it has the highest migration rate in Turkey. Population of Istanbul has increased from 1 million in 1950 to 14 million people in 2012 (Istanbul Metropolitan Municipality, 2012).

Figure 20: Population of Istanbul after 1950



Source: ( Istanbul Metropolitan Municipality, 2012)

Currently, Istanbul is the largest city in terms of population and 19% of total population of Turkey is living in Istanbul (Istanbul Metropolitan Municipality, 2012). Istanbul is also the largest industrial



centre of Turkey, nearly 20% of Turkey's industrial labour works in Istanbul and 38% of Turkey's industrial workspace located in this area ( Istanbul Metropolitan Municipality, 2012). Population of Istanbul increases by about 200.000 to 250.000 per year (Tuhral, 2005). Thus, demand for land and housing has increased considerably and affordable housing units had become important problem for low income groups in Istanbul. Therefore, shanty houses and unplanned houses are built and used without construction permits in Istanbul (Turk & Altes, 2010). Turk & Altes (2010) reported that in Istanbul only 48% of the buildings have construction permits, and only 19% of the dwellings have occupancy permits. Therefore, in order to solve problem of unplanned urbanization and shanty houses and increase the life standards of the society and quality of living places, KIPTAS (Istanbul Konut Imar Plan Sanayi ve Ticaret A.S), which is a participation of Istanbul Metropolitan Municipality, was established on 8 March 1995 (Elliot, 2010; <http://www.kiptas.com.tr>, 2012).

At the beginning of the 1990s, due to the increasing demand for housing, especially metropolitan municipalities started to carry out housing developments. Municipality Law (No. 5393) allowed municipalities to establish a corporation for developing and buying lands, making expropriations, building houses on these lands and developing projects with banks, selling and hiring these properties within its borders. KIPTAS is a considerable model for Municipal Corporation (Elliot, 2010; Turk & Altes, 2010). Istanbul Metropolitan Municipality realizes mass housing production directly through KIPTAS including profit based and social housing applications (Turk & Altes, 2010).

KIPTAS is an important institution for the housing sector of Istanbul and it aims to develop housing projects for all income groups. These projects provide trustable and happy liveable places without the infrastructural and environmental problems. KIPTAS tries to realize housing projects in short time without disturbing the historical and natural structure of the city, protecting the forest lands, cultivated areas, water sources and great divides (Tuhral, 2005; Elliot, 2010; <http://www.kiptas.com.tr>, 2012). KIPTAS has constructed nearly 60.000 dwelling units in Istanbul in accordance with the education, transportation, trade and industry conditions and provided necessary services for those such as road, water, electricity, telephone, and natural gas line and plants these areas. Moreover, schools, health clinics, sport facilities, markets, mosques and play gardens had been constructed by KIPTAS in dwelling areas for the residents (Elliot, 2010; <http://www.kiptas.com.tr>, 2012).

According to the general construction procedure of KIPTAS, it signs a contract with one or more construction companies for a fixed price. KIPTAS selects high performance construction companies whose previous housing projects comply with the criteria of KIPTAS. These construction companies are responsible for all construction phases of dwelling projects and they have direct effects on KIPTAS's prestige in the sector. Therefore, contractors handle the jobs under the control of KIPTAS. However, the marketing phase is totally made by KIPTAS. Households have high trust to KIPTAS because of the being a participation of the metropolitan municipality. There is a high demand for the constructed housing units by KIPTAS which exceeds the supply capacity of KIPTAS (Tuhral, 2005).

## B.1. Housing Activities and Projects of KIPTAS

KIPTAS started its housing construction projects with Basak-Hilal Collective Housing Project on 17 May 1995 (<http://www.kiptas.com.tr>, 2012). Within this project, Basaksehir Houses (3.004 housing units) constructed in European side of the Istanbul and Hilalsehir Houses (1.276 housing units) constructed in Anatolian side of the Istanbul. These projects were mass housing projects (Turk & Altes, 2010). After these successful housing projects, KIPTAS realized different kind of housing projects for all income groups. As it is shown in the picture below, KIPTAS performs many housing projects all over the Istanbul.

Figure 21: Housing areas of KIPTAS in Istanbul



Source: (Elliot, I. A. (2010). *Fact Finding Report on Poverty and Housing in Turkey.* ; <http://www.kiptas.com.tr>, 2012)

In these housing areas, KIPTAS have been producing social housing, renovating housing stock in slum areas and constructing prestige housing to create sources for social housing projects (<http://www.kiptas.com.tr>, 2012).

KIPTAS has a purpose of providing affordable housing units with long payment periods and low interest rates. However, interest rates, payment periods and amount of down payment change from project to project. These are arranged based on the housing area, housing size and housing quality. For example, dwellings offered by KIPTAS in Esenyurt had only for 6.000 TL down payment, 120 months payment period and 0,26% interest rate (<http://www.kiptas.com.tr>, 2012).

Housing projects fulfilled by KIPTAS is shown with details in Table 12.

Table 14: Housing Projects of KIPTAS in Istanbul

Projects	Number of Housing Units	Villas	Social Housing
Altunizade Hilal Mansions	169	358	
Arnavutkoy Houses	574		
Başak Konutları Kağıthane Evleri	1274		
Dragos Mansions	128		
Erguvan Kent	600		
Esenyurt Houses 3rd Phase	1320		
Esenyurt Houses 4th Phase	625		
Esenyurt Houses 5th Phase	1088		
Esenyurt Houses 2nd Phase	672		
Esenyurt Houses	752		
Finanskent	846		
Green Valley Mansions	617	271	
Hadimkoy Houses 2. Phase	2150		
Hadımköy Houses	1012		
Halkalı Çamlıkaltı Konutları	120		
Icerenkoy Houses	208		
Icerenkoy Houses	144		
İkitelli Başakşehir 1st Phase			3004
İkitelli Başakşehir 2nd Phase	2304		
İkitelli Başakşehir 4th Phase	5692	127	
İkitelli Başakşehir 4th Phase 2nd Part	2272		
İkitelli Başakşehir 5th Phase 1st Part	3592		
İkitelli Başakşehir 5th Phase 2nd Part	1340		
İkitelli Masko Evleri	360		
İkitelli Masko Houses	420		
Kağıthane Terasevler	155		
Kartal Mutluevler	104		
Kayabaşı Houses	1140		
Maltepe Altayçeşme	120		
Maltepe Houses	878		
Maltepe Konutları 2	1276		
Metrokent	1480		
Mimar Sinan Houses	570		
Mimar Sinan Konutları İşyerleri	712		
Nishadalar	2200		
Pendik Aydos Houses	1000		
Pendik Dolaboya Tasbayır Social Houses			842
Pendik Dolayoba	842		
Pendik Şeyhli Hilalşehir	1284	128	
Sarıyer Zekeriyaköy	196		
Sarmaşikevler	432		
Sefaköy Houses	860		
Sefakoy Houses Trade Center	860		
Silivri Houses 2. Phase	2020		
Tepecik Houses	1179		
Topkapi Center Houses 2. Phase	481		
Topkapi Center Houses and Workplaces	322		
Topkapi Central Houses	481		
Tuzla Houses	1332		
Tuzla Houses 2nd Phase	1728		
Tuzla Houses 3rd Phase	250		
Tuzla Mimar Sinan Houses	1728		
Üsküdar Ünalın	128		
Yakuplu Houses	304		
Yalova Houses	192		
Zeytinburnu Sümer Mahallesi UTP	1536		
<b>Total Housing Units</b>	<b>54069</b>	<b>884</b>	<b>3846</b>

Source: (<http://www.kiptas.com.tr>, 2012)

### *\*Urban Transformation Projects of KIPTAS*

There are significant numbers of shanty houses in Istanbul, which are lacking from social and technical infrastructure. 3 million of existing housing units need to be renovated in Istanbul (Coskun, 2011) due to the earthquake risk on Marmara region. Many dwellings may collapse in case of a future earthquake (Turk & Altes, 2010). After the earthquake in 1999, Istanbul Metropolitan Municipality introduced new projects which are named as “The Urban Regeneration Projects against the Threat of Earthquake”. The main actors of these regeneration projects are HDAT, KIPTAS and central and local municipalities and they have been applied some number of regeneration projects since 2002 (Sakarya, 2010; Mutman & Turgut, 2011).

In order to prevent public land from shanty houses and renew unplanned housing areas, Istanbul Metropolitan Municipality demolishes illegal housing units to produce land for new development projects of KIPTAS. After demolishing of these houses, KIPTAS determines slum areas that have suitable lands for transformation projects. Then, KIPTAS performs planning and development of housing and financing projects. Because the main goal is to get rid of illegal housing in Istanbul, in these projects, KIPTAS guarantees providing new housing units to households who are previously living in those lands if they pay only the total cost of the housing unit. KIPTAS is very active in urban transformation projects of Istanbul. Every year, KIPTAS performs the construction of new, legal housing units on the land that is produced by demolishing old illegal housing units. In these

projects, mostly apartment units are constructed which are strong for earthquakes and healthy to live in. Moreover, KIPTAS provides many critical opinions for the process of designing, management and implementation of new housing projects in Istanbul (Tuhral, 2005; <http://www.kiptas.com.tr>, 2012).

Urban transformation projects have many positive advantages for Istanbul. Slum areas have been turned into proper settlement areas, which are valuable in terms of economy, city planning, social life and environment (Tuhral, 2005).

#### *\*Resource Development Projects of KIPTAS*

New house prices are very high in Istanbul. Average price per square meter of dwellings increased from \$900 in 2002 to \$2.500 in 2008 and per square meter prices of top-end residences in Istanbul cost \$6.500 to \$9.000. Because of high profit opportunities, Istanbul housing market is very attractive for both domestic and foreign investors. Hence, in order to obtain high profit, large international real estate firms have entered to the market to produce residential properties which are constructed for upper-income groups. Thus, KIPTAS wanted to utilize this capacity and started to perform planning, construction and marketing of luxury dwellings for the upper income people in Istanbul to accumulate more capital for new housing projects (Turk & Altes, 2010).

Principally, KIPTAS is constructing reasonable dwellings for all income groups (Elliot, 2010). As it is in HDAT projects, high profit margins are not the final goals of KIPTAS. However, KIPTAS needs more financial resources to meet the housing requirements of low and

middle income groups (Coskun, 2011). Therefore, KIPTAS have been producing prestige housing in both European and Asian side of Istanbul and those projects provided important capital. For example, KIPTAS is selling housing units in Green Valley Mansions project which is located in Anatolian side of Istanbul. There are 617 housing units and 271 villas in Green Valley Mansions project. There are six different type of dwelling units and house size is between 80m<sup>2</sup>-404m<sup>2</sup>. The price for one dwelling unit ranges between \$200.000 and \$1.400.000. These dwelling units are sold for cash with bank loans (<http://www.kiptas.com.tr>, 2012).

Table 15: Payment Plan for 222m<sup>2</sup> and 254 m<sup>2</sup> Dwelling units in Green Valley Mansions

<b>Size of Dwelling</b>	<b>Cash Price</b>	<b>Down Payment</b>	<b>Maturity</b>	<b>Interest Rate</b>	<b>Monthly Payment</b>	<b>Total Price</b>
222 m <sup>2</sup>	\$386,000.00	\$77,200.00	120	%0,82	\$4,050.00	\$570,000.00
254 m <sup>2</sup>	\$520,000.00	\$104,000.00	120	%0,82	\$5,470.00	\$770,000.00

Source: (<http://www.kiptas.com.tr>, 2012)

These prestigious housing projects gained popularity among higher-income families because they want to live in a gated community which is close to the financial district (Mutman & Turgut, 2011)



### *\*Social Housing Projects of KIPTAS*

KIPTAS aims to provide low-cost, small housing units in quick and economical way with modern, pleasant secure, liveable housing environment to low income people and prevent from squatter housing units in this way (Tuhral, 2005). Istanbul Metropolitan Municipality allocates a budget for the financing of the social housing projects, which KIPTAS develops. KIPTAS has also rights to borrow from foreign investors. Also, main part of the resources of social housing projects comes from resource development projects (Tuhral, 2005).

For the general sales procedure of social housing projects, KIPTAS applies draw (kura) method. People who want to purchase housing units need to make pre-registration. After drawing, right holders should need to make registration and sign contracts. KIPTAS delivers dwelling units to the right holders in 24 months after signing contract. At this stage, households need to make down payment and apply for the housing loan to the bank determined by KIPTAS (<http://www.kiptas.com.tr>, 2012).

KIPTAS sells dwellings with relatively cheap prices according to market conditions to the low and middle income groups. Small amount of down payment is required and dwellings are offered with low interest rates and up to 120 months payment term (Elliot, 2010). In Istanbul housing market conditions, this is a good chance of buying a house for these income groups (Tuhral, 2005).

## CONCLUSION

Housing is the most basic need of the human beings and it indicates the level of economic and social development of societies. In developed economies, besides being a physical need for shelter, housing is one of the main investment tools which stimulate the economy through many sub-sectors. Housing is financed through primary and secondary market institutions; financial corporations, social security institutions, real estate investment trusts, bank loans and mortgage loans in developed and developing countries.

As a developing country, Turkey has witnessed housing shortage since 1950s due to the rapid urbanization and industrialization process and housing problem has arrived to an important level. Besides, social and economic problems extended dimension of the housing problem. Although housing sector is one of the most important sectors in Turkey, necessary steps were not taken in the housing sector until the 1980s. Due to lack of an effective financing system, an important part of the housing stock has not been constructed in accordance with standards. Number of shanty houses increased and violated the zoning and resettlement especially in large cities. In order to solve the problems of housing and meet the requirement of households with institutional financing, new arrangements were applied and new institutions were established by governments towards the improvement of the housing sector in time.

After 1980s, as institutionalized corporations; HDAT, commercial banks, real estate investment trusts, municipalities,

KIPTAS and other municipal institutions have operated in the housing sector so far.

Today, HDAT is the most important public institution of housing sector. HDAT was established with the aim of meeting housing requirements of low and middle income households while preventing unplanned urbanization by this way. Thus, HDAT developed different social housing projects and financing methods for different groups of households. HDAT builds a huge amount of social housing units in Turkey. Besides credit support to housing cooperatives, 560.000 housing units have been produced by HDAT since 2003 and 85% of the produced housing units were offered as social housing units to households. Only %15 of dwellings was constructed by Emlak Konut REIT within the framework of resource development implementations and revenues obtained from resource development projects are used in the social housing projects of HDAT. HDAT's goal is not to be an organization that solves housing problems with its own production. It produces 5-10% of housing needs of housing sector annually, but HDAT goals to identify barriers of housing sector and eliminate them to increase efficiency in housing sector of Turkey. Consequently, HDAT could be a successful model for the other countries in terms of social housing production.

Commercial banks stayed away providing housing loans for households with long term payment periods as a result of high inflation and interest rates in Turkey for many years. They provided housing loans with short-term monthly repayment policies. Therefore, people have mostly used their personal savings and applied for non-

institutional sources. However, as a result of the achieved economic stability after 2002, inflation, nominal and reel interest rates decreased and volume of housing loans offered by commercial banks have increased significantly. However, the volume of housing loans provided by commercial banks is still limited when compared to European Union countries and United States.

The Mortgage Law (Law No.5582), which was passed and entered into force by the Parliament in 2007, is seen as an important step for increasing the amount of housing loans provided by commercial banks. Some arrangements were made with this law, for the housing finance sector's adaptation process to market conditions of Turkey. Mortgage finance system is very important for the development of an institutionalized housing finance system for Turkey.

A REIT, which was firstly introduced in 1995 in Turkey, is an investment company that provides funding for all kinds of real estate through its own equity or using the pooled capital of many investors. With the effects of the earthquake in 1999 and financial crisis of 2001, the growth rate of REITs was stable. Normalization process has started after 2002 in Turkish economy and the number of REITs and their portfolio sizes increased over time. As a result of the rapid growth rate in the market, REITs have been very effective in the real estate market since 2004 in Turkey.

Today, there are 24 registered REITs in Turkey. Their stocks are quoted in the Istanbul Stock Exchange and their activities are regulated by the Capital Market Board. In Turkey, REITs have

financed a number of large projects such as commercial business centers, shopping centers and mass housing since their establishment. REITs contribute to the economy with large real estate projects and they also provide investment opportunities to investors through capital market. Investors can buy shares of the REITs through the stock market. In return, they may be paid dividends during the investment period. Investors may also sell their shares during the work hours of the Istanbul Stock Exchange and receive capital gains. During the early years of REITs in Turkey, they had invested mainly to the rental estate portfolios. Later, they have moved their portfolios to the development of real estates. Currently, the portfolios of REITs include mainly commercial real estate and they started to turn their investments for housing and shopping center projects.

Local municipalities, which have right to realize urban housing projects such as housing production and urban regeneration projects, have important responsibilities about the development of healthy housing sector. Therefore, especially metropolitan municipalities realize housing projects with contractors or participation companies. KIPTAS (Istanbul Konut Imar Plan Sanayi ve Ticaret A.S), which is a participation of Istanbul Metropolitan Municipality, was established to solve the problem of unplanned urbanization and shanty houses and increase the life standards of the society and quality of living places in Istanbul. KIPTAS have been realizing prestige housing projects in Istanbul and revenues obtained from these projects have been used in the urban transformation and social housing projects of KIPTAS.

In Turkey, as a result of high inflation and interest rates, non institutional sources such as direct funding and personal savings are used by many households to meet housing demand for many years. However, real estate sector is becoming increasingly stable and attractive after the improvement of economy and decreasing inflation and interest rates since 2002. Therefore, significant amount of investments both from international and domestic investors have been moved to real estate sector.

Due to the importance of real estate sector, real estate and housing finance is so important for Turkey. Therefore, Turkey needs a well designed housing finance system that should meet housing requirements in all aspects. However, the results of the housing finance applications in the world have shown that there is no available housing finance system which can be applicable for all countries. Thus, the important issue is applying most appropriate housing finance system and later, adapting the system according to market conditions. In housing market of Turkey, appropriate housing finance system hasn't been implemented yet. Turkey needs planned development in the housing sector which is only possible with institutionalized structure. Although many steps have been taken in the direction of institutionalized housing finance sector, Turkey is not at the desired level in terms of housing finance.

In this direction, both the development of the housing finance structure of Turkey and preventing the housing sector from possible future problems, the following arrangements would be useful for the institutions and structures which have been examined in this study.

- i.* In 2007, legal arrangements had been made about the mortgage system in Turkey but deteriorations on local and global financial conditions have influenced the development of the system negatively. Therefore, the primary and secondary mortgage markets haven't been completed their establishment and development process completely. In this regard, it is required to complete all development processes of mortgage system effective in terms of both primary and secondary markets.

In order to have an effective mortgage sector, there should be a sophisticated and efficient secondary market to meet the requirements of the primary market. However, secondary market hasn't been established in Turkey yet. The secondary market should be established in the mortgage market as soon as possible to complete the development of mortgage system, to create liquidity and long term funds and to raise volume of housing loans. The secondary market is critical to finance long term growth and investment in housing sector of Turkey.

If mortgage system can complete the establishment and development process in the primary and secondary market and offer 20-30 years long payment periods with low interest rates to households, millions of people would like to own a house with a payment schedule as rent payment. In Turkey, per capita income has increased in the last decade and this increased the capacity of households to make down payment and monthly payment for housing loans. Moreover, a significant portion of

Turkish society has loyalty for housing payments. Therefore, if monthly instalments do not exceed one-third of the individual's monthly income, number of defaults and foreclosures in Turkey will be less which directly effects the investments in the primary and secondary markets. Consequently, if mortgage system can be adapted to Turkey's housing market conditions, this system will be very successful in Turkey.

- ii.* Because of the decline in inflation in Turkey, commercial banks have started to increase the volume of housing loans in recent years. In order to provide more housing loans, commercial banks can use long term funds which can be obtained from foreign countries. Due to the low interest rates in the world, commercial banks can reach huge sources from abroad financial institutions with long term funding opportunities. Commercial banks are most important institutions to provide housing loans and they have critical roles in stimulating the housing and real estate sectors and it is expected to continue their critical roles in housing finance sector of Turkey.
- iii.* REITs are one of the most important financial institutions in the world. REITs may have important roles and advantages for the development of Turkish economy and real estate investments. After adaptation of the mortgage system, in parallel with the improvements in the real estate sector, number of REITs and their portfolio sizes are expected to rise.



A healthy, authorized and well planned development is only possible through institutionalization of the real estate industry. In Turkey, lack of adequate capital and institutionalized system in the housing sector caused too many problems. REITs have important role to provide more capital from investors both domestic and international with realizing high quality and reliable real estate projects according to international standards.

Turkey has an attractive real estate sector for domestic and international investors in recent years. In order to attract more investors, the numbers of REITs should be increased because REITs bring record and transparency to real estate sector. If the number of REITs could increase, recorded transparent information and real estate projects practices in accordance with international standards will increase. In parallel to this, required capital will flow into real estate sector of Turkey.

- iv.* The urban transformation process has started after the 1999 Marmara earthquake and has been performed by the collaboration of HDAT and local municipalities. In general, the urban transformation projects are high cost projects due to the planning, financing, constructing and marketing costs. These projects aim to renew slum areas in terms of socio-cultural, economical and physical manners. HDAT finances large part of these urban renewal projects in Turkey. Normally, in these projects, prompting public-private cooperation or applying for external sources is required. HDAT, municipalities and KIPTAS cannot allocate sufficient funds for all kind of housing projects

with their own budget. Therefore, the cooperation with the private sector should be encouraged and new external sources should be created.

REITs are optimal institutions for these projects because they can be established by municipalities. Also, municipal participations such as KIPTAS can be converted to a REIT. If municipal REITs are established in Turkey, municipalities would obtain important amount of capital from public offerings. As an example, Emlak Konut REIT obtained 1.05 billion TL from public offering and allocated this money for the development of housing projects. Municipal REITs can allocate capital, which is obtained from public offering, for urban regeneration projects through private contractors. They will finance more projects and make a profit while creating more healthy housing units with modern infrastructure.

There are important advantages for the establishment of REITs by municipalities. Municipal REITs can be established;

- ✓ for a limited time to undertake only urban transformation projects,
- ✓ for a limited or unlimited time to invest in urban transformation projects,
- ✓ to use corporate tax exemption and other interventions which are rights of REITs,
- ✓ to realize more urban transformation projects through obtained funds from public offering,

- ✓ to make profit from developed projects,
  - ✓ to make advance payments to contractor companies through obtained funds from public offering,
  - ✓ to decrease dependency to contractor companies in projects,
  - ✓ to decrease the completion time of projects (advantage of performing legal provisions in short period for developed projects),
  - ✓ to make payments to landlords for the purchase of squatter houses.
- v. In addition to establishment of municipal REITs, municipal participations can convert to REITs. KIPTAS which is a participation of Istanbul Metropolitan Municipality can be converted to a REIT. KIPTAS realizes projects such as urban transformation, resource development and social housing. KIPTAS performs these projects in Istanbul and achieves successful implementations. If KIPTAS can be converted to a REIT, it will eliminate the limited budget problem. Because, KIPTAS would provide huge amount of capital from public offering as Emlak Konut REIT due to its credit rating and brand in the housing sector. As a REIT, KIPTAS will have more capacity to produce more luxury housing units for upper income households and gain important capital. This means that KIPTAS will have more opportunities to realize urban transformation and social housing projects. If KIPTAS can be converted to a REIT, KIPTAS can increase its power in housing sector and can take place a leader position in Istanbul housing market. Establishment

of municipal REITs will contribute the improvement of capital markets and they would be important institutions for development of the real estate and construction sectors in Turkey.

- vi.* In addition, for the urban transformation projects, as it was stated before in HDAT transformation projects section, the landlords should pay only the cost of the houses which produced instead of their own dwelling. Even if this money comparatively lower than the real value of the new housing units, some of low income households cannot pay required payment. Therefore, they are against to urban transformation. In order to solve this problem, it is required to support these households with loan options via credit institutions.
  
- vii.* One of the important costs in the housing sector is high land prices. As a result of the high land costs, the prices of small and standard housing units, produced for low and middle class, are significantly high. Decreasing the cost of the land prices have critical role for producing housing units with affordable prices. Therefore, government should apply some arrangements about land prices.

Firstly, the Value Added Taxes (%18) on land prices should be reduced below %5. If the tax rates on land prices go down, this will directly decrease the house prices produced by the construction companies and housing cooperatives. Secondly,

HDAT and local municipalities should produce cheap building lands for housing sector. HDAT obtained huge size of building lands and plot from Emlak Bank and General Directorate of Land Office and also HDAT can obtain lands from treasury. In addition, local municipalities have important number of plots and lands. The problem about those lands and plots is that they don't have infrastructure facilities. Therefore, both HDAT and local municipalities should produce cheap building lands, which have completed infrastructure. These lands can be either used by HDAT for housing production for low and middle income groups or sold to the construction companies and housing cooperatives with long term payment plans. This option also will have direct effect in decreasing house prices. The possible bubble in housing and land prices will be prevented by applying these policies.

- viii.* HDAT is the most important public institution of housing sector which has taken active role in the housing sector as regulator, producer and also financial provider since 1984. Currently, there is a requirement for at least 500,000 housing units each year in Turkey. Most of these housing units are demanded by middle and low income groups. Therefore, as a housing producer for those groups of households, HDAT should continue its projects. However, there are some existing deficiencies about the HDAT system that should be improved.

First of all, in order to sustain housing finance system securely, the tender shouldn't be given contractors who don't have

sufficient capital and reliability. This is really important because insufficient contractors threaten the quality, confidence and brand name of HDAT. Secondly, as a public and self-reliant institution, housing projects may not be subject to public inspections. Therefore, a certified inspection institution should be assigned to inspect HDAT's projects. Thirdly, although HDAT makes the payments to contractors between 18 to 24 months period, it realizes the home sales up to 240 months payment term. There is a maturity mismatch risk. This is causing the financing problem for new projects. Therefore, HDAT should perform housing sales through financial institutions. If the financial problems of HDAT can be solved, HDAT can produce more qualified housing units with low costs. Finally, HDAT needs to work for the development and deepening of the secondary market in the housing sector.

These applications would contribute to the development of HDAT securely and prevent the possible future problems. Moreover, they would increase the quality and decrease the cost of produced social housing units by HDAT.

If the above-mentioned developments take place in Turkey, it will be possible to reach the same level with developed countries and the Turkish housing sector can also be a model for other developing countries.

## BIBLIOGRAPHY

- Istanbul Metropolitan Municipality*. (2012). Retrieved from <http://www.ibb.gov.tr/sites/airqualistanbul/documents/eng/istanbul.htm>
- (2011). *2011 Annual Report:Federal Home Loan Mortgage Corporation*.
- (2011). *2011 Annual Report:Federal National Mortgage Association*.
- (2011). *2011 Annual Report:Government National Mortgage Association*.
- Alkiser, Y., & Yurekli, H. (2004). Türkiye’de “Devlet Konutu” nun dünü, bugünü, yarını. *itüdergisi/a* , 3 (1), 63-74.
- Allen, F., & Carletti, E. (2010). An Overview of the Crisis: Causes,Consequences, and Solutions. *International Review of Finance* , 1-26.
- Alp, A., & Yilmaz, M. U. (2000). Gayrimenkul Finansmanı ve Değerlemesi. *IMKB Yayinlari* .
- Alp, A., & Yilmaz, M. U. (1999). Konut İpotek Kredilerinin Sermaye Piyasaları Yoluyla Finansmanı. *Active* , 1-9.
- Ayan, E. (2011). Konut Finansmanı Sistemi ve Türkiye’de TOKİ Uygulamalarının Analizi. *Muhasebe ve Finansman Dergisi* , 139-156.
- Aydin, S. (2006). *HOUSING FINANCE IN TURKEY:THE ROLE OF HOUSING LOANS EXTENDED BY COMMERCIAL BANKS*.
- Baloglu, B. (2007). 100 Soruda Mortgage Uygulamaları. *ITO Yayinlari* .
- BASTI, E. (2009). 2008 GLOBAL FINANCIAL CRISIS AND THE TURKISH FINANCIAL SYSTEM. *Ç.Ü. Sosyal Bilimler Enstitüsü Dergisi* , 18 (2), 89-103.
- Berberoglu, M. G., & Teker, S. (2005). Konut Finansmanı ve Türkiye'ye Uygun Bir Model Önerisi. *ITU Dergisi/b,Sosyal Bilimler* , 2 (1), 58-68.

Bianco, K. M. (2008). *Walters Kluver Law&Business*. Retrieved from [http://www.business.cch.com/bankingfinance/focus/news/Subprime\\_WP\\_rev.pdf](http://www.business.cch.com/bankingfinance/focus/news/Subprime_WP_rev.pdf)

Boleat, M. (2008). *Housing Development and Housing Finance in Britain*. International Real Estate Advisory Network Ltd.

Boleat, M. (1985). *National Housing Finance Systems: A Comparative Study*. London: Croom Helm.

Boleat, M. (2004). *The development of a mortgage market in Turkey- Lessons from the British experience*. Boleat Consulting.

Callis, R. R., & Kresin, M. (2011). *RESIDENTIAL VACANCIES AND HOMEOWNERSHIP IN THE THIRD QUARTER 2011*. Washington D.C.: U.S. Census Bureau News.

Camur, K. (2007). Does the New Millennium Mean New Hopes for Housing the Urban Poor? Does Strategic Approach Ensure Pro-Poor Housing Strategies in Developing Countries? 43rd ISOCARP Congress 2007.

*Capital Market Board*. (n.d.). Retrieved November 5, 2012, from <http://www.cmb.gov.tr/indexcont.aspx?action=showpage&showmenu=yes&menuid=4&pid=8&subid=2&submenuheader=8>

Colton, K. W. (2002). *Housing Finance in the United States: The Transformation of the U.S. Housing Finance System*. Joint Center for Housing Studies Harvard University.

*Communiqué On Principles Regarding Real Estate Investment Companies*.

Compare and contrast: Worldwide Real Estate Investment Trust (REIT) Regimes. (2011, July). PWC.

Corporate Profile of TOKI. (2011). *Building Future of Turkey*. Housign Development Administration of Turkey.



- Coskun, Y. (2011). DOES RE-DESIGN OF THE POLICIES ON HOUSING FINANCE AND SUPPLY HELP TO SOLVE HOUSING QUESTION OF TURKEY? *ERES 18 th Annual Conference 2011*. Eindhoven.
- Courchane, M. J., & Giles, J. A. (2001). A Comparision of US and Canadian Residential Mortgage Markets. *Property Management* , 20 (5), 326-368.
- Datta, K., & Jones, G. A. (1999). *Housing and Finance in Developing Countries*. New York: Routledge.
- Demir, H., & Palabiyik, V. K. (2005). Konut Edinmede Uzun Vadeli İpotek Kredisi Sistemi. *Jeodezi, Jeoinformasyon ve Arazi Yonetimi Dergisi* , 92, 3-11.
- Demir, H., Kurt, V., & Cagdas, V. (2003). Housing Financing in Turkey. *Second FIG Regional Conference*, (pp. 1-14). Marrakech.
- Dogru , H. (2007). *Menkul Kıymetlestirme&Mortgage:Genel ve Hukuki Esaslar*. Istanbul: Dogru Hukuk Yayinlari.
- Elliot, I. A. (2010). *FACT FINDING REPORT ON POVERTY AND HOUSING IN TURKEY*.
- Emlak Konut Gayrimenkul Yatırım Ortaklığı A.Ş. (2012). *01.01.2012-31.03.2012 Ara Dönem Yönetim Kurulu Faaliyet Raporu* .
- Emlak Konut GYO*. (n.d.). Retrieved November 7, 2012, from <http://www.emlakgyo.com.tr/Projeler/>
- Emlak Konut:A differentiated business model - Initiate with OW. (2012, May 16). J.P.Morgan.
- Emlak Pazarlama İnsaat Proje Yonetimi ve Ticaret A.Ş.* (2012, October 15). Retrieved from <http://www.emlakinsaat.com.tr/>
- Erdogdu, P. S. (2010). A Comparative Analysis of Entry to Home Ownership Profiles:Turkey and Netherlands. *METU JFA* , 95-124.

- Ermisoglu, E., Demir, F., Karabiyik, A., & Kucuk, A. (2008). *ABD Mortgage Krizi. BANKACILIK DÜZENLEME VE DENETLEME KURUMU*.
- Ernst, & Young. (2007). *REAL ESTATE INVESTMENT TRUSTS (REIT) APPLICATIONS IN TURKEY*.
- Erol, I., & Patel, K. (2005). Default risk of wage-indexed payment mortgage in Turkey. *Journal of Housing Economics* , 271-293.
- Erol, I., & Patel, K. (2004). Housing Policy and Mortgage Finance in Turkey During the Late 1990s Inflationary Period. *International Real Estate Review* , 7 (1), 98-120.
- Eskinat, R. (2012). TÜRK İNŞAAT SEKTÖRÜNDE (TOKİ'NİN) YERİ VE ETKİSİ. *Dumlupınar University Journal of Social Sciences* , 2, 159-171.
- Fabarozi, F. F. (2006). *The Handbook of Mortgage Backed Securities* (6 ed.). United States: McGraw-Hill.
- (2009). *Federal Housing Administration:Annual Management Report*. Washington D.C.: U.S. Department of Housing and Urban Development.
- Gaschler, T. E. (2010). Understanding the Securitization Process and the Impact on Consumer Bankruptcy Cases., (pp. 667-680).
- Green, R. K., & Wachter, S. M. (2005). The American Mortgage in Historical and International Context. *Journal of Economic Perspectives* , 19 (4), 93-114.
- Gurbuz, A. (2002). *İpotekli Konut Kredileri ve Türkiye'de Uygulaması*. Uzmanlık Tezi. Türkiye Cumhuriyeti Merkez Bankası.
- Hawtrej, K. (2009). *Affordable Housing Finance*. Palgrave Macmillan.
- Hepsen , A. (2008, 03 17). *Gelismis Ülkelerde İpotegge Dayali Menkul Kıymetlestirme Uygulamalari*. Retrieved from [http://www.alomaliye.com/2008/ali\\_hepsen\\_gelismis.htm](http://www.alomaliye.com/2008/ali_hepsen_gelismis.htm)

Hepsen, A. (2005). Bir Finanslama Yöntemi Olarak Menkul Kıymetleştirme, İpotege Dayalı Menkul Kıymetleştirme ve Türkiye Uygulaması. *İstanbul Ticaret Odası Yayınları* .

Hepsen, A. (2010). *Gayrimenkul Piyasaları ve Finansmanı: Türkiye'de Gayrimenkul Finansman Piyasalarının Gelişimi*. İstanbul: Literatur Yayınları.

(2008). *Housing Finance Review: Analysis and Proposals*. HM Treasury Contacts.

<http://www.kiptas.com.tr>. (2012, July 25).

<http://www.hofinet.org/countries/description.aspx?regionID=6&id=175>.

(n.d.). Retrieved from

<http://www.hofinet.org/countries/description.aspx?regionID=6&id=175>

*Kamuyu Aydınlatma Platformu*. (n.d.). Retrieved from

<http://www.kap.gov.tr/>

(2009). *Kentleşme Surası 2009: Kentleşme, Konut ve Arsa Politikaları 3*. Ankara: Bayındırlık ve İskan Bakanlığı.

Kilic, S. (2007). Konut Finansman Modeli Olarak Yapı Tasarruf Sandıkları; Almanya ve Türkiye'deki Uygulamaları. *Yönetim ve Ekonomi, Celal Bayar Üniversitesi İ.İ.B.F* , 14 (1), 231-246.

King, P. (2009). *Understanding Housing Finance: Meeting Needs and Making Choices*. Routledge.

Kizilsu, G. (2006). Mortgage System and the Increasing Importance of Real Estate Evaluation in Turkey. *XXIII FIG Congress*, (pp. 1-9). Munich, Germany.

Komurlu, R. (2006). *Ülkemizde Toplu Konut Üretimine Yönelik Kaynak Oluşturma Model Yaklaşımları*. Yıldız Teknik Üniversitesi Fen Bilimleri Enstitüsü, Mimarlık Anabilim Dalı Doktora Tezi, İstanbul.

Komurlu, R., & Onel, H. (2007). Turkiye'de Konut Uretimine Yonelik Kaynak Olusturma Model Yaklasimlari. *YTU Arch. Fac. E-Journal* , 2 (2), 89-108.

Kutlu, H. A., & Demirci, S. (2011). Küresel Finansal Krizi (2007-?) Ortaya Çıkaran Nedenler, Krizin Etkileri, Krizden Kısmi Çıkış Ve Mevcut Durum. *Muhasebe ve Finansman Dergisi* , 121-136.

*Law No.2499 CAPITAL MARKET LAW*. (2007). Retrieved from [http://www.cmb.gov.tr/regulations/files/CMB\\_law.pdf](http://www.cmb.gov.tr/regulations/files/CMB_law.pdf)

Lea, M. J. (2000). *International Housing Finance:Sourcebook 2000*. Countrywide International Consulting Services.

Leece, D. (2004). *Economics of the Mortgage Market:Perspectives on household decision making*. Blackwell Publishing Ltd.

Mah, M., & Lim, H. (2008). Subprime Mortgage Crisis—Causes and Consequences. *The Journal of Applied Research in Accounting and Finance* , 3 (1).

Marsha, C. J., & Judidh, G. A. (2001). A Comparision of US and Canadian Residential Mortgage Markets. *Property Management* , 20 (5), 326-368.

Mastroeni, O. (2001). *Pfandbrief-style products in Europe*. Bank for International Settlements(BIS Papers No 5).

Mutman, D., & Turgut, H. (2011). A Social and Spatial Restructuring in Inner-City Residential Areas: The Case of Istanbul. *Enhr Conference 2011*.

Ökte, M. S. (2012). THE FINANCIAL CRISIS OF 2008 IN THE USA:AN OVERVIEW. *Iktisat Fakultesi Mecmuasi* , 62 (1), 81-101.

Owner-occupier rates set to fall further on both sides of the Atlantic (2010).

Ozsan , O. (2005). Avrupa Birligine Uyelik Surecinde Turkiye'de Konut Finansman Sistemi. *Active Finans* .

Ozturk, N., & Dogan, A. (2010). Konut Sektörünün Sorunları ve Çözüm Önerileri. *Bütçe Dünyası Dergisi* , 33, 139–154.

Renaud, B. (1984). *Housing Finance Institutions in Developing Countries*. Chicago.

Sakarya, I. (2010). The Role of The Local Municipalities In The Urban Regeneration Projects of Istanbul.

Stephens, M. (2003). Globalisation and Housing Finance Systems in Advanced and Transition Economies. *Urban Studies* , 40, 1011–1026.

Stone, M. E. (2003). *Social Housing in the UK and US: Evolution, Issues and Prospects*.

TBMM. (n.d.). Retrieved October 27, 2012, from <http://www.tbmm.gov.tr/kanunlar/k5582.html>

Teker, B. (2007). *The New Turkish Mortgage Law*. TURKEY REAL ESTATE YEAR BOOK.

*The UK Housing Market over the past 50 years*. (2010). Retrieved from [http://www.lloydsbankinggroup.com/media/pdfs/research/2010/50\\_Years\\_of\\_Housing\\_UK.pdf](http://www.lloydsbankinggroup.com/media/pdfs/research/2010/50_Years_of_Housing_UK.pdf)

*Toplu Konut İdaresi Başkanlığı*. (2012). Retrieved from <http://www.toki.gov.tr/english/hda.asp>

Tuhral, M. (2005). *Real Estate Development Process in Turkey*.

Turhan, I. (2008). Housing Sector in Turkey: Challenges and Opportunities. *17 th Annual International Conference: The American Real Estate and Urban Economics Association*, (pp. 1–6).

Turk, S. S., & Altes, W. K. (2010). Institutional capacities in the land development for housing on greenfield sites in Istanbul. *Habitat International* 34 , 183–195.

*Turkiye Bankalar Birliđi*. (2012, August 1). Retrieved from <http://www.tbb.org.tr/tr/>

*Vakif Gayrimenkul*. (n.d.). Retrieved from <http://www.vakifgyo.com.tr/>

Verick, S., & Islam, I. (2010). The Great Recession of 2008–2009: Causes, Consequences and Policy Responses. *IZA Discussion Paper No. 4934*.

Wallison, P. J., & Ely, B. (2000). *Nationalizing Mortgage Risk: The Growth of Fannie Mae and Freddie Mac*.

Warnock, V. C., & Warnock, F. E. (2008). Markets and Housing Finance. *Journal of Housing Economics*, 1–33.

Yetgin, F. (2007). Avrupa Birliđi ve Turkiye Konut Politikaları Uzerine Bir Inceleme. *Marmara Universitesi I.I.B.F Dergisi*, 23 (2), 311–330.

Yilmaz, U. M. (2000). *Turkiye'de İpotege Dayalı Menkul Kıymetler Merkezinin Kurulması*. Ankara: Sermaye Piyasası Kurulu Yayınları.

Yukseler, Z. (2009). *Gayrimenkul Sektöründe Gelişmeler ve Olası Sorunlar*. Türkiye Cumhuriyeti Merkez Bankası.