

# **Mortgage Market Development in Turkey and Future Prospects**

Neslihan Turguttopbas, Bugra Erdal (Atilim University, Turkey)

**Abstract:** It is a fact that housing sector contributes directly and significantly to overall production activity in a country. Furthermore, it produces a Keynesian multiplier effect as a home purchase usually results in further spending in other sectors of the economy which creates other rounds of income and purchases. In the last decade, Turkish economy has experienced an annual growth of 4.3% on average, despite the crisis in 2008 and 2009, the private construction activities has also an average increase of 4.3% stabilizing the share of the private construction sector in GDP at 6-7% level. The positive developments in Turkish economy and financial markets have enabled banking system to provide mortgage loans with longer maturities, however, the limited access capability to longer term funding sources has created, and is expected to create further, maturity mismatch and funding deficit for Turkish banks. In this framework, a secondary capital market is required for the banks to create longer term funding sources. The analysis made on the secondary mortgage market models of US and Europe reveals the fact that there should be a governing agency wholly or partly operated by public sector. In such a framework, in Turkey, it is proposed that Public Housing Administration (TOKI) can be furnished with required capabilities and legal entitlements in order to serve as the housing finance agency of Turkey.

**Key words:** mortgage loan; housing; residential mortgage backed security; housing finance agency **JEL code:** G23

# **1. Introduction**

In Turkish capital markets, the debut mortgage covered bond issue backed by the residential mortgages in the amount of 410 million TL with 5 years maturity was realized in mid February 2015 by a prominent Turkish commercial bank. The issue was the first tranche of the banks newly-established covered bond programme. However, the issue was a direct sale to European Investment Bank rather than a public offer. The issue secured A3 rating from Moody's which is three grades above the ratings of the plain vanilla issues of the relevant bank. The proceeding of the issue will be used to providing financing to Small and Medium Enterprises (SME). This issue is the first achievement after a long waiting period for Turkish secondary mortgage market which is supposed to be followed by other commercial banks that have considerable residential mortgage portfolios.

Although Capital Markets Board of Turkey (CMB) regulated secondary mortgage market in 2007, the amendments in the form of CMB Communiqué made in 2014 improved the legal frameworks for asset/mortgage backed covered bonds, effective amendments have been entitling the issuer to the free use of cash as long as statutory test results are satisfactory and defining minimum rating criteria for the swap counterparties. The banks,

Neslihan Turguttopbas, Ph.D. in Finance and Accounting, Associate Professor, Management Faculty, Atilim University; research areas/interests: international finance, financial markets. E-mail: ntopbas@atilim.edu.tr.

as well as mortgage finance corporations located in Turkey authorized by the Banking Regulatory and Supervision Agency (BRSA) are entitled to issue mortgage covered bonds (MCB) with the condition of approval by CMB. Under the MCB legislation, commercial mortgages are capped at 15% of the cover pool and only up to 50% of the property value counts as an eligible cover asset for the purpose of cover matching assets. An issuance limit of 10% of the total assets and five times of the equity of the issuer have been set.

Turkish capital market actors and foreigners as well expect the secondary mortgage market to develop rapidly referring to three favorable conditions. These are the more suitable legal structure, existing mortgage loan portfolio of Turkish banking system and promising potential of the real estate sector.

The major aim of this analysis is to elaborate the potential of development of Turkish secondary mortgage market. In the first section, the analysis will focus on the existing mortgage loan portfolio of the banking system and promising potential of the real estate sector. In the second section, the American and European models of the development of secondary mortgage markets will be elaborated in order to develop in-depth understanding about the stages of development. In the last section, the requirement of a housing finance agency is underlined and it is proposed that in Turkey, TOKI can be evolved into housing finance agency by gradually contracting its activities in construction sector for which it has been criticized to distort the competition.

## 2. Literature Review

It is surprising that the secondary mortgage market development in different countries have been analyzed more by international institutions such as World Bank and IMF, rather than the academicians. However, it is not surprising that academic analysis, especially after 2000s, has been focused on the development of mortgage in emerging countries as the developed ones have already established markets. The most recent structural and detailed analysis has been provided by IMF focusing on the housing finance and real-estate booms on a cross-country perspective. One of the findings which gives valuable insight for mortgage market development was "both advanced and emerging markets should avoid relaxing house financing standards in order to achieve deeper mortgage markets, and focus first on doing so through improving institutions (for example, legal rights) and the macroeconomic environment." (Cerrutti et al., 2015)

Another structural and detailed analysis has been provided by World bank, and Turkey was included in the list of "latecomer" countries together with China, India, Thailand, Mexico, most of the new European Union countries, Morocco, Jordan, Brazil, Peru, Kazakhstan, and Ukraine where mortgage markets stand at 6-17 percent of GDP (Chiquier & Michael Lea, 2009). Another study of World Bank revealed the fact that there have been limited successes in introducing mortgage securities in emerging markets on a significant scale despite numerous attempts. The reasoning was explained by the infrastructure requirements for mortgage security issuance which has been very demanding, time consuming and costly (Chiquier et al., 2004).

Bardhan and Edelstein (2007) developed a benchmark metric for explaining the relationship between the mortgage market size of a country and socio-economic explanatory variables determined by using the data of 18 OECD countries. Focusing on Russia, China and India, the analysis revealed that there has been substantial growth potential for the mortgage markets of those countries.

# 3. Mortgage Loan and Housing Market

#### 3.1 Turkish Banking System and Housing

3.1.1 Mortgage Loan Portfolio of Turkish Banking System

In the last decade, the stabilization in the economic and financial conditions of Turkey has been resulted with the increasing demand to housing loans, especially after 2004. As of December 2014, the outstanding balance of the housing loans is 260.891 million TL (115.377 million \$) and 15.9 million citizen has used mortgage loans. Figure 1 shows that the mortgage loans portfolio of Turkish banking system has increased 8.23 times in TL terms and 4.51 times in \$ terms since 2005.

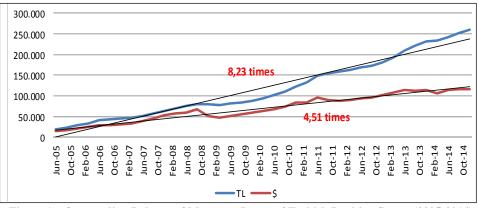


Figure 1 Outstanding Balance of Mortgage Loans of Turkish Banking Sector (2005-2014) Source: Turkish Banking Association

However, as many of the holdings of Turkish banking sector has experienced such an expansion, the share of the mortgage loans in the total assets of the banks is 5% as of December 2014 which is the lowest share since 2005, as can be seen from Figure 2. The share reached its maximum level in 2012 and such reduction can simply be attributed to the change of the composition of Turkish banking system. Referring to Figure 3 after 2011, Turkish banks reduced their holding of securities and concentrated on the lending function to not only to housing sector but also to real sector as well.

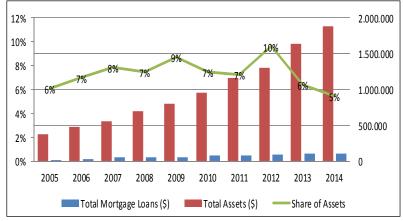
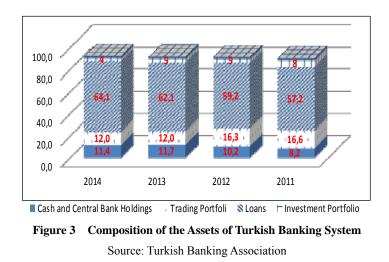


Figure 2 Total Assets and Mortgage Loans of Turkish Banking System (2005-2014) Source: Turkish Banking Association



Despite the changing composition of total assets of Turkish banking system in favor of loans, the share of housing loans in total loans portfolio of Turkish banks has also diminished since 2010 when it peaked at 24% referring to Figure 4. It is fact that the steady increase in the amount of loans secured by Turkish banking system since 2010 has not been realized in the housing loans.

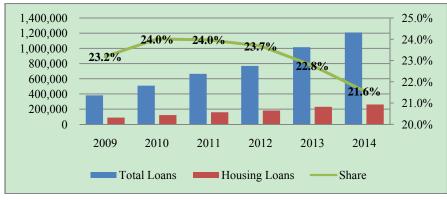
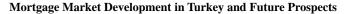
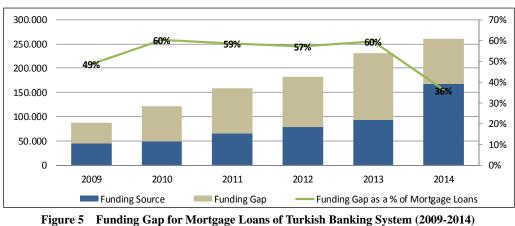


Figure 4 Sharet of Mortgage Loans in Total Loan Portfolio

The reasoning behind the decrease in the share of mortgage loans is thought to be sourced by the funding structure of Turkish banks. The maturity of the mortgage loans extended by Turkish banks has two bracket 1-5 years and 5-10 years.<sup>1</sup> As a medium and long term asset these mortgage loans have expected to be financed by longer term liabilities which are Borrowings from Financial Institutions, Money Market Borrowings with maturities over 1 year and Marketable Securities Issued. However, referring to Figure 5, more than half of mortgage loans are funded by equity and short term liabilities both of which are not reliable, effective and appropriate funding source for mortgage loans. In 2013, the funding gap was increased to 60% of the mortgage portfolio signaling a critical mismatch and thus the banking sector put on the brake for mortgage loans. Another and more general but inevitably influential reasoning may be the deteriorating macro-economic fundamentals which affect both the banking system and the house buying behavior of the household.

<sup>&</sup>lt;sup>1</sup> http://www.bddk.org.tr/websitesi/turkce/Raporlar/Calisma\_Raporlari/13132006-1.pdf. The latest public data about the maturity profile of Turkish banking sector is dated 2006. Any relevant public data has not been available since then to our knowledge.



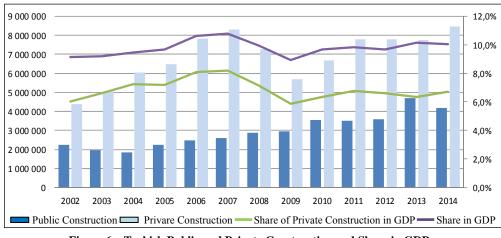


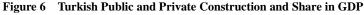
Source: Turkish Banking Association

# 3.1.2 Turkish Housing Market

The growing economy and favorable demographics<sup>2</sup> which has been reflected in the increasing consumption in Turkey have contributed also to the strengthening construction sector. In fact, the major pillar of economic development has been set to be the construction sector since 2002. The construction sector has serve economy on two aspects; firstly by utilizing labor force and creating demand for approximately 250 sub-sectors, it motivates the economic activities. On the other side, it is amongst the more sensitive sectors to economic growth as the demand for new buildings highly depends on the general economic climate.

Figure 6 indicates the volume of the construction activities since 2002 which is dominated by private sector, as well as the share of the construction sector in GDP. In 2007, the share of construction reached its peak level of 10.8% and stabilized thereafter at 10%, except the crisis year of 2009. On the other hand, the share of the private construction sector experienced parallel developments and stabilized around 6% after 2011.





#### Scource: TUIK

<sup>&</sup>lt;sup>2</sup> Turkey's demographics are characterized by its population of about 77.7 million inhabitants at end-2014 with a median age of 30.7 years. While the rate of those resident at province and district centers was 77.3% in 2012, today 91.3% of the total population resides in province and district centers with the significant effect of establishment of metropolitan municipalities in 14 provinces and participation of counties and villages to district municipalities as quarters in 14 provinces. According to the data of The Association of Real Estate and Real Estate Investment Companies (GYODER), the urbanization rate in Turkey is 78%. It is suggested that the urbanized population, which is about 60 Million will be 71 Million in 2023.

Housing Development Administration has dominant position in public construction sector especially in housing however and data about its activities is unavailable. On private construction sector front the developments since 2002 is given in Figure 7. The growth of the private construction sector experienced two major downward movements; the first one was in 2005 when a slow-down was realized in the big infrastructure projects. However, the recovery was quicker than the general economy referring to Table 7. A more severe downward movement was realized in 2009, the time of global crisis, the effects of economic slowdown on construction was so acute. The construction sector has been a pioneer for economic growth, but it has been severely affected by economic downturns.

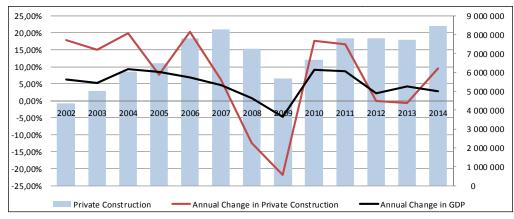


Figure 7 Growth in Private Sector Construction

The construction sector has been highly affected by the policies of the governments and the purchasing power level of the household. Referring to Table 8, the monthly house sales have increased from an average monthly level of 35.000-40.000 to a level of 95.000-100.000 since mid-2009. The robust mortgage lending practices of Turkish banks made the mortgage as an efficient funding means for house sales, the proportion of house sales under mortgage loans was increased to its highest level of 47% in March 2011. However, the steady increase eased and the proportion was decreased to a level of 37% on average till the end of 2014. Despite, this downward movement it is a fact that mortgage loans have become a considerable funding source for house sales, even have provided a critical motivation to housing sector.

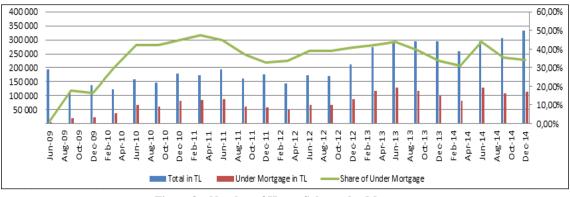


Figure 8 Number of House Sales under Mortgage

Source: TCMB

# 3.2 Models of Secondary Mortgage Market Development

For the development of the secondary mortgage market, each country has its own peculiarities in terms of legal mechanisms, the structuring and development level of the credit institutions, the business and lending practices, historical and economic conditions. The analysis of the practice of development of the secondary mortgage market development reveals two basic models of market organization. These are American (two-tier) and European (one-tier) models and their major characteristics are given in Table 1 (Bazhanova G. & Shakiryanova, 2014, p. 125).

## 3.2.1 American Model of Secondary Mortgage Market Development

The American secondary mortgage market is shaped by the State it not only generated a legal basis for the mortgage system functioning, but also directly created specialized institutions of the secondary mortgage market (namely, Federal National Mortgage Association (Fannie Mae), Government National Mortgage Association (Ginnie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac)).

Freddie Mac, established in 1970 with the enactment of Emergency Home Finance Act of 1970, enhances the liquidity of mortgage investments and increases the availability of funds for mortgage lending by developing and maintaining a nationwide secondary market for conventional residential mortgages. Freddie Mac links mortgage lenders and capital markets through its purchase and sales functions. It many different types of mortgage loans principally from savings and loan institutions as well as from mortgage bankers and commercial banks. It sells mortgage pass-through securities representing undivided interests in conventional mortgages. It develops uniform mortgage instruments, forms, and underwriting guidelines that promote standardization of conventional loans on a national basis. Freddie Mac also develops purchase programs and sales instruments that respond to the needs of the mortgage lending industry. It develops processing mechanisms to support its standard business operations and to improve the efficiency and effectiveness of the secondary market. Freddie Mac finances most of its mortgage purchases through participation certificates sales. The corporation can also finance its operations through the issuance of debt obligations: long-term through debentures and short-term through discount notes, reverse repurchase agreements, and lines of credit obtained from commercial banks (U.S. Department of Housing and Urban Development, 1982).

Fannie Mae is a major part of the secondary market for residential mortgages, providing additional liquidity to the mortgage market and improving the distribution of investment capital available for financing the construction and sale of housing. It provided a secondary market for Federal Housing Administration (FHA) and Veterans Administration (VA) mortgage loans only, also conventional mortgage loans. It conducts a mortgage-backed securities program for conventional and seasoned FHA and VA mortgages. Fannie Mae's purchase activities are financed principally by the cash flow from its mortgage portfolio and high volume issuance of debentures and short-term discount notes and also its stock is publicly traded.

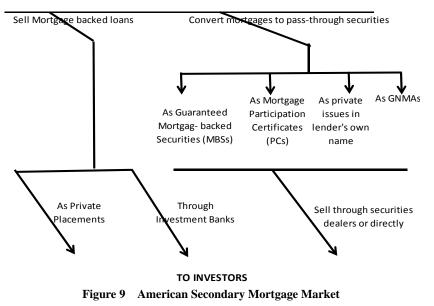
Ginni Mae supplies and stimulates, through secondary market mechanisms, mortgage credit that supports the government's housing objectives by assisting that segment of the housing market for which conventional financing is not readily available. GNMA has authority to purchase subsidized and unsubsidized single family and multifamily FHA and VA mortgages and, at times, conventional mortgages. Special assistance purchase programs are financed by Treasury borrowings, interest received on holdings, and commitment fees. The securities guaranty program is financed by application and guaranty fees paid by the issuers of the securities.

	American model	European model
Sources of housing financing	Savings deposits	Collective accumulation of savings in private banks and public savings banks Cumulative contributions to the housing construction are encouraged by the state premium at a certain value; or these contributions (up to a maximum amount) are exempt from income tax
Primary lenders	Savings banks	Specialized institutions (mortgage banks, building societies, savings banks and land banks, mutual and cooperative banks) Universal banks Insurance companies
Issuers of mortgage securities	Specialized operators (Fannie mae; Ginnie mae; Freddie mac), Investment banks Savings institutions Conduits	Mortgage banks Universal banks
Types of mortgage-backed securities	Pass-through (transferable), structured	Mortgage bonds (pfandbriefe and jumbo pfandbriefe), social bonds secured by the governments guarantees
Mortgages options	Average loan amount is about 327.000U.S.\$ Maturities from 10 to 30 years Fixed interest rate Coefficient of credit capacity (credit availability) is 28-30%	Average loan amount is about 100 thousand Euros LTV = 70 Maturities from 10 to 30 years Fixed interest rate
Size of indebtedness under mortgage loans	7 trillion U.S. \$	1 trillion U.S. \$
Share of mortgage loans funding through mortgage-backed securities	Over 54%	About 30%
Amount of securities issue	1.4 trillion U.S. \$	1.1 trillion Euro
Regulatory documents	Securities Act of 1933 Securities exchange act of 1934 Trust indenture act of 1933, law investment Sarbanes-oxley act of 2002 Self-regulatory organizations of professional securities market participants	Exchange act (end of the XIX century) Credit transactions act (the end of the XIX century) Securities trading act (1994) Securities commission States-commissioner Federal chamber for banks supervision Special legislation Mortgage bonds act
Investor protection	State guarantees State insurance Credit ratings set by international rating agence	A special status of the mortgage collateral Legislative restriction of permitted operations for mortgage banks Institute of the trustee controlling the mortgage collateral and issuer complicane with mortgage legislation

## Table 1 Comparative Characteristic of American and European Models of the Mortgage-backed Securities Market

Source: Bazhanova G. and Shakiryanova, 2014.

In the American model the primary lender and the issuer of mortgage-backed securities are separated, consequently long-term residential mortgage loans allowance and servicing functions are separated from resource mobilization and financial risks management functions. The secondary market for residential mortgages, the structure of which is given in Figure 8, as evolved into a multi-channeled process, with the number and types of both mortgage originators and investors expanding as the market matures.



#### MORTGAGE ORIGINATORS

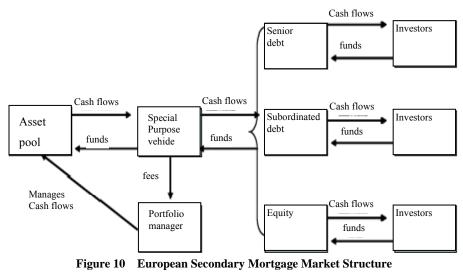
Source: http://huduser.org/portal//Publications/pdf/HUD-11648.pdf, s. 20.

The secondary market process includes both sales and purchases of mortgages. Originators can choose to sell whole loans or participations to investors through direct sales, through sales to Freddie Mac or Fannie Mae, or through sales to a conduit such as a private mortgage insurance company. Many purchasers, like Freddie Mac, Fannie Mae, and other conduits, resell the loans to other investors by means of mortgage-backed securities. Other purchasers, including Fannie Mae, may hold purchased loans in portfolio and not sell them to another investor. Originators can choose to convert mortgages into pass-through securities as GNMAs, as private issues, as Mortgage Participation Certificates (PCs) under Freddie Mac's Guarantor program, or as Guaranteed Mortgage-backed Securities (MBSs) under Fannie Mae's program (U.S. Department of Housing and Urban Development, 1982).

#### 3.2.2 European Model of Secondary Mortgage Market Development

In the European model of Mortgage-Backed Securities, market organization is rather simple as compared to American model which is given in Figure 10. The financial resources come from specially organized secondary market for secured bonds and the primary lenders are specialized institutions such as mortgage banks, building societies, savings banks and land banks, mutual and cooperative banks total of which has a share of 90% and insurance companies keeps the remaining 10%. The sectoral organizations are European Mortgage Federation (EMF), European mortgage banks are entitled to issue mortgage bonds (pfandbriefe and Jumbo pfandbriefe) and social bonds secured by the guarantees of governments for the purposes of social infrastructure financing.

Although there exist practical differences especially in the form of mortgage terms and security formation, the standard of the European model of mortgage-backed securities market is the German system of market organization which is characterized by Pfandbriefe as a financial instrument. The structure of the Pfandbriefe has provided German investors with security while at the same time providing a steady source of funding for the German mortgage markets. The integrity of the covered bond market for residential finance in Germany is due also in part to the stringent oversight that the German financial regulator BaFin provides for the Pfandbriefe market (Hagen, 2008).



Source: European securitization form

As there is no legal or market definition for securitization in Germany, the growth of securitization has been slow. Germany has used synthetic securitization more extensively than traditional securitization as in the case of America. Pfandbriefe banks are subject to strict regulation and supervision such as banking license, core capital of at least 25 million EUR, and a suitable risk management system in place. Pfandbrief banks can originate mortgages up to 90 percent of the independently estimated value of a building. Over-collateralization is accomplished through the requirement that at most 60 percent of the mortgage can be included into the asset pool securing the Pfandbrief. Only mortgages from EU/EEA countries, Switzerland, USA, Canada and Japan, can be included in the asset pool (VDP, 2010, p. 11). Given this over-collateralization, government guarantee against a default of a mortgage bank has not been used as it was also ended by European Union's competition laws in 2005. Even without government backing, the investors did not require an increased risk premium for Pfandbriefe.

Germany makes up the largest share of funding mortgages by use of Pfandbriefe. The institutions issuing (mortgage) covered bonds are named as Hypotheken-Pfandbriefe, are mainly the private mortgage banks and public-sector credit institutions. The most prominent attribute of the Germany secondary mortgage market is the cap on Loan to Value (LTV) ratio at 60% which indicates relatively strict regulations. Mortgages that have an LTV higher than 60% must be funded through alternative/additional instruments that create credit enhancements. Besides, the prepayments have high penalties and are sometimes not allowed at all. It is expected that secondary mortgage market will be activated afterwards due to the abolition of the state guarantee from the Landesbanken and the Sparkassen. The loss of the public sector support mechanism has been reflected in their credit are to use covered bonds to overcome the credibility concerns (Hypsotech Management Consultancy, 2013).

In order to build up a European-based government sponsored enterprise similar to Fannie Mae or Freddie Mac in the US, the European Mortgage Finance Agency (EMFA) project was initiated in November 2003. It is thought to be a private sector body to be supported by a number of European banks and the proposed structure of the European secondary mortgage market is given in Figure 11. The proposed agency was based on similar publicly-supported mortgage lending institutions in Hong Kong, Canada, the US that provide long-term funding by selling bundles of mortgages to investors. Under this mission, the agency is assigned the role of marketing mortgage-backed securities in a standard format and guaranteeing to cover shortfalls in repayments of principal

and interest by mortgage borrowers. The structure seeks backing in the form of a sort of a guarantee from the EU, but with risk capital to be provided by the private sector, to establish a unified secondary mortgage market. However, a major obstacle to the creation of this Agency was also sourced by the request for an EU backing as European Commission has repeatedly opposed public guarantees by Member States that risk distorting equal access to capital markets which inevitably distorts (Forum Group on Mortgage Credit, 2004).

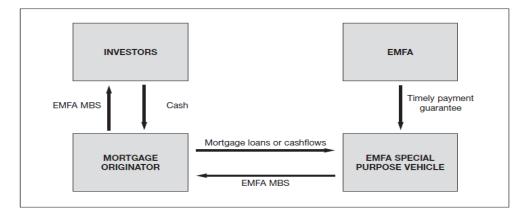


Figure 11 The Proposed Role of European Mortgage Finance Agency in Secondary Mortgage Markets Source: Thomas (2004), p. 19

Although the efforts of establishment of a European Mortgage Finance Agency with the proposed mission of creating a standardized secondary mortgage market across Europe has been ill-born, individual countries have their own agencies such as Caisse de Refinancement l'Habitat (CRH) of France that provides state guarantee for refinancing of mortgages granted by French banking system and wholly owned by French banks in proportion with their mortgage loan portfolio outstanding amount.<sup>3</sup>

The housing agencies in the sample were initially established in response to concerns that there was a shortage of housing finance in the economy. In Japan, the Government Housing Loan Corporation (GHLC) was established in 1950 to provide a stable supply of housing finance and improve the quality of the nation's housing stock (Konishi, 2002). The Canada Mortgage and Housing Corporation (CMHC) is 100 percent owned by the government and enjoys an explicit guarantee of the Canadian government. The Netherlands has a government-owned mortgage insurer, the Homeownership Guarantee Fund (NHG) providing 100 percent mortgage default insurance and a temporary mortgage payment facility. In Malaysia, Cagamas Berhad was established in the mid-1980s to help rectify a shortage of housing finance (Kokularupan, 2005). The Hong Kong Mortgage Corporation (HKMC) was established in 1997 because of concerns in the mid-1990s that local banks would be unable to satisfy anticipated strong demand for housing credit (Yam, 1996). The Indian National Housing Bank (NHB) was established in 1988 to promote a sound and cost-effective housing finance system and to help alleviate housing shortages, particularly in rural areas (Reside & Friends, 1999). The Korea Housing Finance (KHFC, 2005).

<sup>&</sup>lt;sup>3</sup> http://www.crh-bonds.com/English Presentation.html.

# 4. Conclusion

It is a fact that housing sector contributes directly and significantly to overall production activity in a country. Furthermore, it produces a Keynesian multiplier effect as a home purchase usually results in further spending in other sectors of the economy which creates other rounds of income and purchases. The degree of multiplier depends on the degree of monetary policy accommodation and the crowding out effect. In such a framework, in a developing country, the activities in the construction and housing sectors not only contributes to the economic growth, but also to the wealth of the household by creating employment, which, in turn, provides required purchasing power to buy new houses. Another financing source for the household to own a house comes from the banking sector in the form of mortgage loans.

In the last decade, Turkish economy has experienced an annual growth of 4.3% on average, despite the crisis in 2008 and 2009, the private construction activities has also an average increase of 4.3% stabilizing the share of the private construction sector in GDP at 6-7% level. This positive development, partly, was a result of the mortgage loans extended by Turkish banking system, as more than 35% of the houses sold are under mortgages and the level of mortgage loan has reached to 113.4 billion \$ as of the end of 2014.

The positive developments in Turkish economy and financial markets have enabled banking system to provide mortgage loans with longer maturities, however, the limited access capability to longer term funding sources has created, and is expected to create further, maturity mismatch and funding deficit for Turkish banks. In this framework, a secondary capital market is required for the banks to create longer term funding sources. Moreover, Turkish banks are highly dependent to European banks for longer term funding sources, any deterioration in the global financial environment may worsen the situation.

In fact, current legislative framework in Turkey which is improved in 2014 by Capital Markets Board and became compatible with most of the advanced standards allowing the issuance of both covered bonds and residential mortgage backed securities (RMBS). In this framework, a prominent Turkish bank realized the inaugural RMBS and some of others have intentions to do so. However, the realized issue was a private placement and directly sold to EIB, so it is very early to indicate that a secondary mortgage market is in the stage of development although many of the prerequisite conditions are satisfied such as investor appetite, willingness of the mortgage lenders, etc.

The analysis made on the secondary mortgage market models of US and Europe reveals the fact that there should be a governing agency wholly or partly operated by public sector. Fannie Mae and Freddie Mac of US, are most likely the globally best known housing finance agencies and there exist such governing bodies in many of the countries as well. Although the approaches used by the housing finance agencies to achieve the development or support housing finance markets differ considerably over time and across the countries, most of the agencies have been given the additional tasks of promoting the development of domestic mortgage bond markets and/or of functioning as vehicle for the securitization of housing finance. The organizational structure and business lines also differ in that some agencies distribute their own loans to households, either directly or via other mortgage lenders, or they even operate as housing project developers. They can also serve the functions of a mortgage liquidity facility by extending wholesale loans to the mortgage lenders collateralized by the lenders' mortgage portfolios or by purchasing already originated mortgages of banks or other lenders.

In such a framework, in Turkey, Public Housing Administration (TOKI) can be furnished with required

capabilities and legal entitlements in order to serve as the housing finance agency of Turkey. TOKI, is the main public institution of Turkey in housing and settlement issues. It has acquired essential knowledge and experience on developing different finance models regarding housing production throughout its 30 year-activity period in connection with other international establishments such as HABITAT. TOKI, by itself, has a housing loan portfolio targeting the low and middle-income people. 15% of the housing projects realized "Fund Raising by method of Revenue Sharing" and 85% of "Social Housing" projects.

In virtue of its legal status as a public agency, TOKİ has no share capital, it cannot be declared bankrupt and its assets are immune from attachment. TOKİ prepares corporate annual reports, and although the reports are not publicly available, TOKİ's accounts are audited by the High Auditing Council. The receivables portfolio of the Administration consists of the receivables from the sales of the social welfare housing projects, land sales, administration's share from the receivables from the revenue sharing projects and the receivables from the housing loans. Other income items include budget appropriation and levies on Turkish citizens travelling abroad. TOKI has entitled to provide funding to Turkish banking system for housing loans that may arise in case of a possible liquidity problem although banks has not used these lines in the period 2011-2014.

Under a transformation project, TOKI can be evolved into housing finance agency by gradually contracting its activities in construction sector for which it has been criticized to distort the competition. Referring to the achievements of the similar establishments in developing countries, a more appropriate structure for TOKI can be determined as the housing finance agency serving Turkish secondary mortgage market.

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