



The Effects of 2008 Global Financial Crisis to The USA Real Estate Sector and Comparison of Similarity-Difference with the Situation of The Turkish Real Estate Sector in Recent Period

Fatih ŞENTÜRK*

ABSTRACT

The liquidity crisis which stemmed from the low-income families' inability to pay back the high-risk housing credits which were given by relying on the low interest rates in 2008 not only caused damage in the US but also in several other countries' real estate sectors, thus making finance institutions and investors suffer significant losses. In this study, it is endeavored to compare similarities and differences between the global financial crisis' reflections on the US economy with the Turkish real estate sector in the recent period. Real estate, which is the leading sector in Turkey, has experienced economic losses during the crisis period due to the contraction in GDP. In this context, it is aimed to examine controversies regarding the forming of a housing bubble as well as the possibility of a similar crisis to the liquidity crisis in the US happening in Turkey due to an atmosphere of panic caused by the private sector's and households' increasing burden of debt.

Keywords: Liquidity Crisis, Housing Bubble, US Housing Sector, Turkey Real Estate Sector.

JEL Classification: G01, R21, R31.

2008 Küresel Finansal Krizinin ABD Gayrimenkul Sektörüne Etkileri ve Türk Gayrimenkul Sektörünün Son Dönemdeki Durumu ile Benzerlik-Farklılık Karşılaştırması

ÖZ

2008 yılında, gelir seviyesi düşük olan ABD vatandaşlarına, düşük faizlere güvenilerek verilen ve yüksek risk taşıyan konut kredilerinin geri ödenememesiyle başlayan likidite krizi sadece ABD değil, dünyanın çeşitli ülke ekonomilerinin gayrimenkul sektörlerine zarar vererek finans kurumlarının ve yatırımcıların önemli kayıplar yaşamasına neden olmuştur. Bu çalışmada küresel finansal krizin, ABD ekonomisi ve gayrimenkul sektörüne yansımaları ile Türkiye-Gayrimenkul sektörünün son dönemdeki durumu arasındaki benzerlik-farklılıkların tespit edilmesi amaçlanmıştır. Türkiye'nin lokomotif sektörü olan bu sektör, kriz sürecinde GSYH'deki daralmanın üstünde ekonomik kayıplar yaşamıştı. Bu bağlamda özel sektör ve hane halkının da artan borç yükü dolayısıyla oluşabilecek bir panik havası ile ABD'deki gibi bir likidite krizine dönüşerek benzer bir krizin Türkiye'de görülme olasılığı ve konut balonu oluşumu tartışmaları irdelenmeye çalışılmıştır.

Anahtar Kelimeler: Likidite Krizi, Konut Balonu, ABD Konut Sektörü, Türkiye Gayrimenkul Sektörü.

JEL Sınıflandırması: G01, R21, R31.

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* Yrd.Doç.Dr., Abant İzzet Baysal Üniversitesi, Turizm İşletmeciliği ve Otelcilik YO, Turizm İşletmeciliği Bölümü, fatihsenturk78@gmail.com

1. INTRODUCTION

It may be said that the most important reasons of occurrence of 2008 US financial crisis are securitization of problematic housing loans in financial system and demonstration of increase in an uncontrollable level as credit rating agencies give high grades to these credits. With the crisis, not only the USA but also financial institutions and investors from various countries in the world investing in such assets experienced significant losses. Afterwards, this crisis, which became global and of which the effects still continue, damaged real estate sector and especially housing financing system within the real sector of the country economies.

With this research, detecting similarity-difference between the reflections of global financial crisis on US economy and real estate sector and the latest status of Turkish-Real Estate sector is aimed. This sector, which is the leading sector of Turkey, experienced economical losses over GDP restriction in the crisis period. For the recent period a “housing balloon” in Turkey is discussed. In this context, determining on housing balloon occurrence in Turkey like the USA and the status that it may turn into a liquidity crisis due to the increase in the housing prices and increasing debt burden of the household is studied.

2. METHODOLOGY AND STUDIES

Economical and financial data related to the study is gathered from the public and private sector enterprises at national and international levels. In relation to this data, an opportunity to obtain information about the subject of the research by using the charts/tables and to perform evaluation for the purposes achieved. As a result of the resourcing, sources such as various articles, economical data, e-book are evaluated by inspecting after they are collected and afterwards an article draft related to the research subject was formed.

In the process of research, websites and data base of institutions such as World Bank Development Indicators, IMF World Economic Outlook Database, OECD Statistics, Federal Reserve Bank (FED) Economic Research & Data, U.S. Census Bureau, U.S. Federal Housing Finance Agency, U.S. Department of Commerce, U.S. Department of Labor, The Economist Journal, Bloomberg Business, The Guardian were utilized. In addition to them; database, economic indicators, journals and activity/sector reports belonging to TCMB (the Central Bank of the Republic of Turkey, CBRT), TUIK (Turkish Statistical Institute, TurkStat), TBB (The Banks Association of Turkey), BDDK (Banking Regulation Supervision Agency), GYODER (The Association of Real Estate and Real Estate Investment Companies), EBSO, EKGYO (EK REIC), TSDE (Institute of Strategic Thinking), MUSIAD (Independent Industrialists’ and Businessmen’s Association), TUSIAD (The Turkish Industry & Business Association), TMB (Turkish Constructors Association), university publications, auditing firms, public and private banks were used at the national level.

In the section of research findings, the status of the global real estate sector was inspected, and afterwards the effects of global crisis on the USA economy and real estate sector and the status between 2000-2009 involving the crisis period after the period starting with September 11 events and continuing with the policies of FED about increasing monetary expansion are inspected. In the end of section and the sections of conclusion and comments, similarity-difference status of housing sectors were attempted to be compared by evaluating the status of the Turkish real estate sector and the course of the Turkish real estate sector correlatively in consideration of global and the USA real estate sector experience.

3. RESEARCH RESULTS

3.1. The Status of the Global Real Estate Sector

According to the Global Housing Watch (2015) reports of IMF published about global housing sector, a downside movement was experienced by the crisis as of 2008 around the world

in the real estate sector, which revealed a fast growth between 2000 and 2007. However, it was in tendency to grow again as of last quarter period of 2009. Within the new economic conditions starting to occur after the crisis, it is observed that the real estate market goes through a period of normalization, gradual and limited growth between 2010 and 2014 (IMF, Global Housing Watch Reports, 2015).

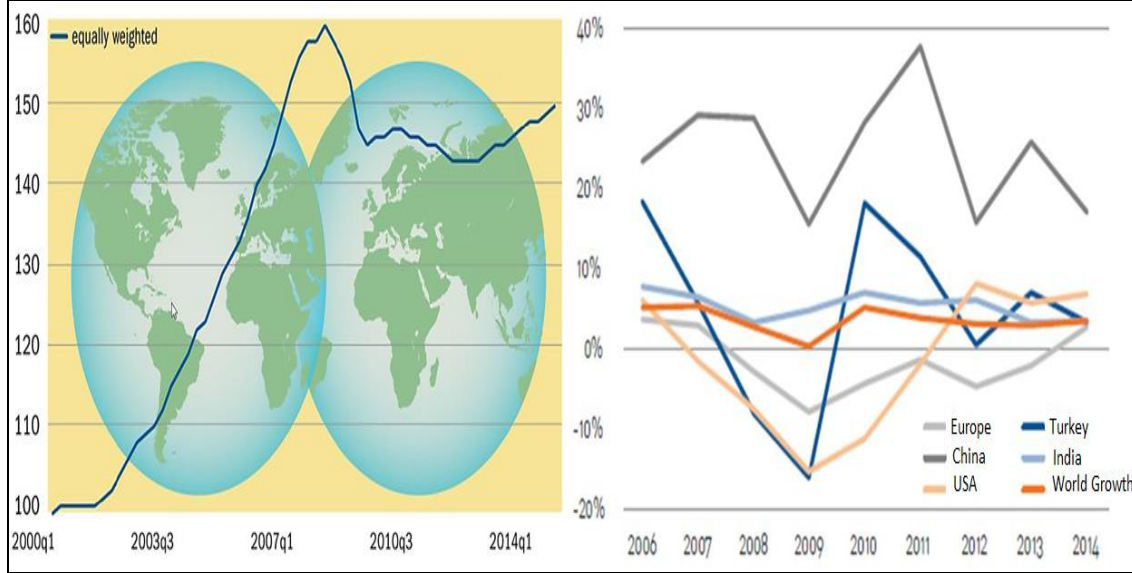


Figure 3.1: Global Housing Price Index & Selected Countries Real Estate Sector Growth Rates

Source: IMF.

Viewing the reports of IMF in question, low level increase in sales observed in developed countries has an impact on global housing prices index. Viewing country-based housing price changes all around the world, such a picture is revealed. When we view the first quarter price changes of 2015, the countries, in which housing prices increase the most, are Qatar, Ireland, The United Arab Emirates, Estonia and Turkey while the countries, in which housing prices decrease, are Ukraine, Southern Cyprus, Russia, China and Slovenia, respectively. Factors such as; geopolitical position, demographic structure, war-natural disaster, legal regulations as well as national income changes, foreign capital inflows, investment-saving habits have critical roles and affect consumer preferences in terms of the difference of country-based housing price changes (IMF, Global Housing Watch Reports, 2015).

The effect of global crisis on asset prices within EU was reflected more negatively in comparison with other economies. Germany seems to lose the growth course slightly, which is maintained on certain stability. It may be said that housing prices in Germany since 2010 pursue a plateau. While refreshing effects of the precautions taken after the crisis especially on the USA Economy are observed clearly, recovery in England, in which similar policies are applied, continues and it is discussed whether the increases in housing sales and prices are healthy or not. According to the report, it is expected that there is cautious optimism in housing prices and the attraction of housing investment will continue.

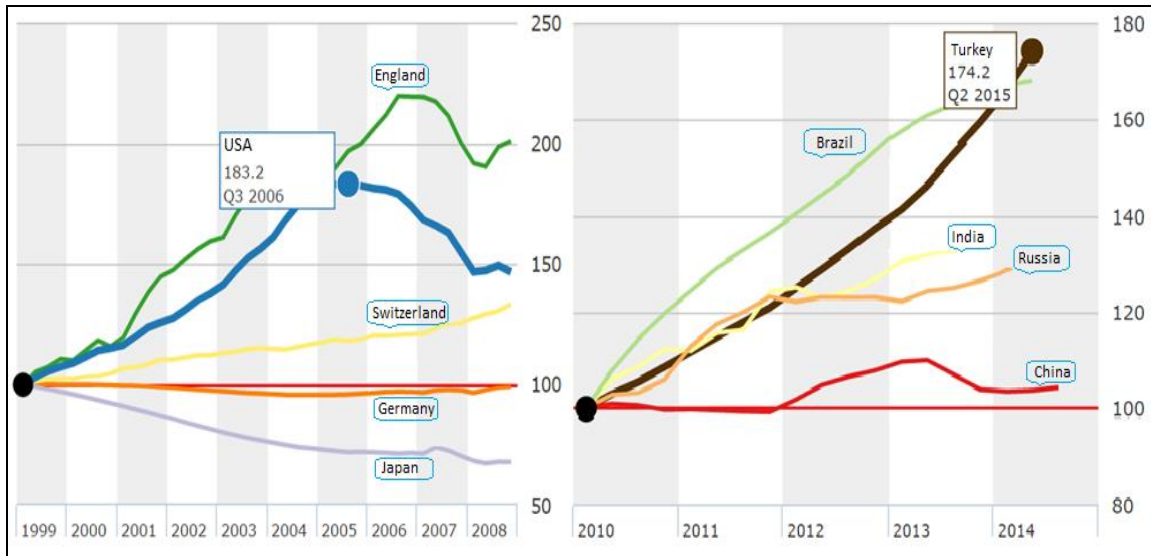


Figure 3.2: Developed Countries & Emerging Countries Housing Price Index

Source: www.economist.com, (Q1 2000=100), (Nov.17, 2015)

When we view the developing countries, it is observed that general tendency indicates the increase in housing prices though there is no difference on a country basis. While price increases are at lower levels in 5 years period in BRIC countries such as; China and India, increases in Russia and Brazil are faster. When comparing BRIC countries and Turkey for the same period, more increases at housing prices than Russia and China are observed, less price increase than Brazil happens. Among the EU countries, the effects of crisis are revealed on the housing prices as well as on all assets and harsh decreases are experienced on the prices in Ireland, Spain, Greece and Italy, which are the countries that are affected by the crisis the most.

3.2. The USA Economy and the Status of Real Estate Sector

Discrediting the financial markets due to the crisis in the USA led to intense capital outflows to abroad from this country in 2007-2008 periods. This case caused considerable decrease of credits transferred to real sector from the financial sector and credit downfall. Thereby total demand and real production in the USA regressed, current deficit increased, unemployment rates raised, national income decreased. When economic data of the USA is inspected, GNP growth rate, which was 3,1% in 2005, regressed to 1,9% in 2007. In 2008, in which the effects of the crisis increase, national income experienced a growth of -0,3% and a growth of -3,1% in 2009 remaining below the world average. Inflation rates did not change a lot between 2005-2008 and it was stable in the range of 2,9-3,8%. Inflation rate was -0,3% in 2009. While there was a current deficit of nearly 5,7% in 2005-2007, it regressed to 4,7% in 2008 and 2,7% in 2009 in the USA, in which there is a constant current deficit problem. When the unemployment rates are reviewed, the unemployment, which was about 4,8% in average until 2007, climbed to 5,8% in 2008, 9,3% in 2009 and reached its highest level for the recent 25 years period (IMF, World Economic Outlook, October-2012).

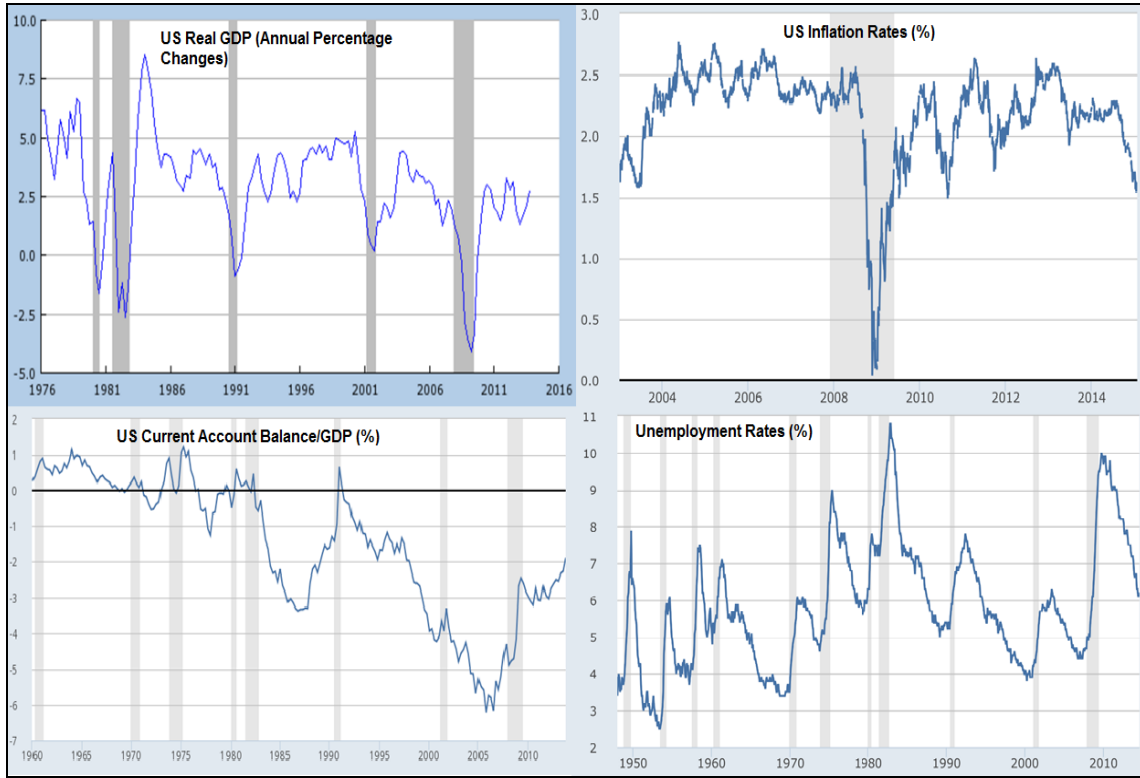


Figure 3.3: The USA Selected Macroeconomic Indicators

Source: U.S. Department of Commerce, U.S. Federal Reserve Bank of S. Louis, U.S. Department of Labor, OECD.

Housing credit use increased and therefore housing prices increased excessively with the monetary expansion provided by FED after September 11 by means of decreasing interest rates. A significant increase in housing numbers becoming foreclosure with the crisis after the panic mood occurring as a result of not taking back the loans provided to the people, who do not have the potential of paying, happened.

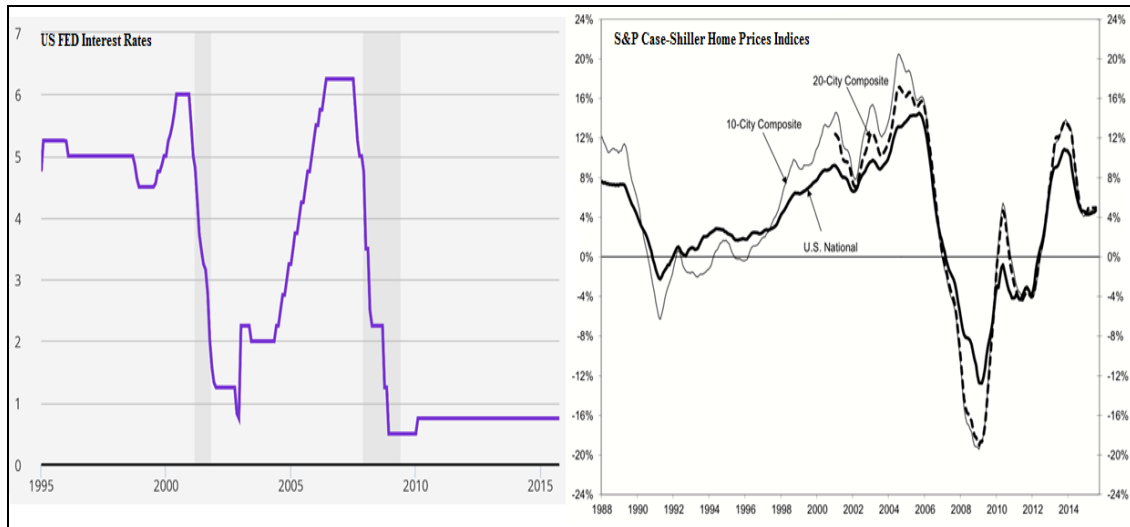


Figure 3.4: U.S. Fed Interest Rates And S&P/Case-Shiller Home Price Indices

Source: IMF, S&P/Case-Shiller Home Prices Indices.

The house prices in twenty metropolitan (states) districts decreased 16% in July, 2008 compared to July, 2007, the value of the houses of 7,5 million housing loan owners reduced to lower levels than the loans they procured in order to buy these houses. In September 2008, the rate of the people, who couldn't pay the housing loan debts, increased 71% in comparison with the same month of the previous year (Engelen, 2008: 69).

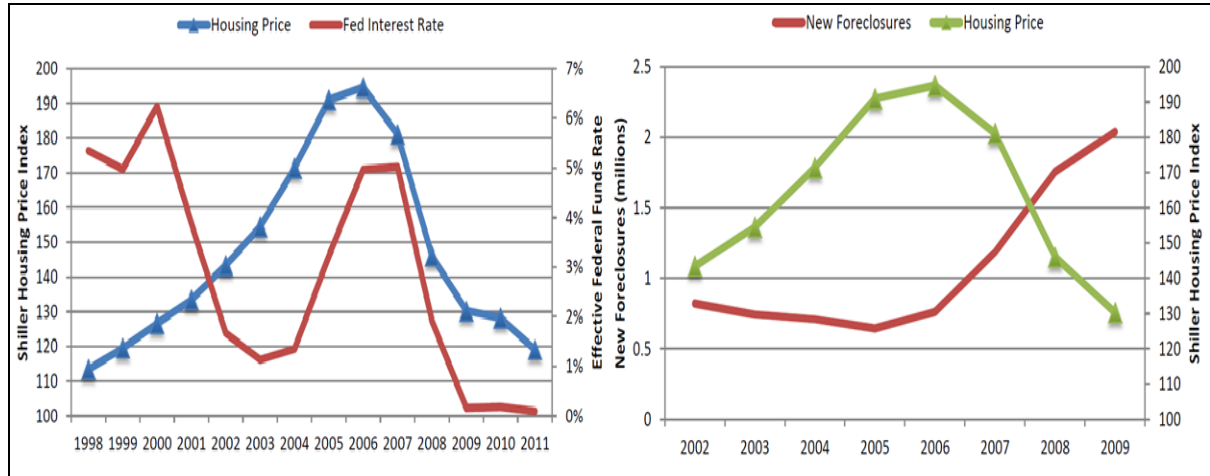


Figure 3.5: The Housing Bubble And Credit Access & Foreclosures And Housing Prices

Source: FED, S&P/Case-Shiller Home Prices Indices.

Securitization market within the housing finance system in the USA was also affected from the crisis negatively. Recent exportations and investments cease in securitization market. After yearly housing sales, which was 7 million in 2005, regressed to 4,9 million in 2008, it became 5,9 million in 2009. Total mortgaged housing credit stock, which was 14,6 trillion USD in 2008, regressed to 14,3 trillion USD in 2009. In the securitization market in commercial real estate finance, liquidity is completely lost and recent security issuances are nearly stopped (see Table 1.) (Beachy, 2012: 24)

Table 1: Effects of Global Financial Crisis on Real Estate Sector of the USA

Years	Total Mortgage Housing Credit Stock (\$ billion)	Securitization of Mortgage-Backed Security-MBS (\$ billion)	The USA Housing Sales (in thousand)	Securitization of Commercial Real Estate Loans (\$ billion)
2001	7.421	1.671	5.336	67
2002	8.244	2.249	5.631	52
2003	9.234	3.071	6.178	78
2004	10.663	1.908	6.778	93
2005	12.064	2.222	7.076	169
2006	13.460	2.132	6.478	203
2007	14.527	2.146	5.652	230

2008	14.607	1.344	4.913	12
2009	14.287	1.957	5.970	3

Source: U.S. FED, U.S. Securities Industry&Financial Markets Association, U.S. Census Bureau, OECD Economic Outlook 2009 March, U.S. Commercial Mortgage Securities Associations.

Mortgage loans increasing regularly with the growth rate of 3,4% between 2000 and 2005 decreased significantly after 2006 in the USA. According to Mortgage Banking Association, it is predicted that the mortgaged housing loans, which reduced 25% in 2008, also reduced 14% in 2009. However, housing sales, housing construction and housing prices gave the first signals in terms of recovery and stability as of the last quarter of 2009 (Deloitte, Turkey Real Estate Sector Report, 2010:4).

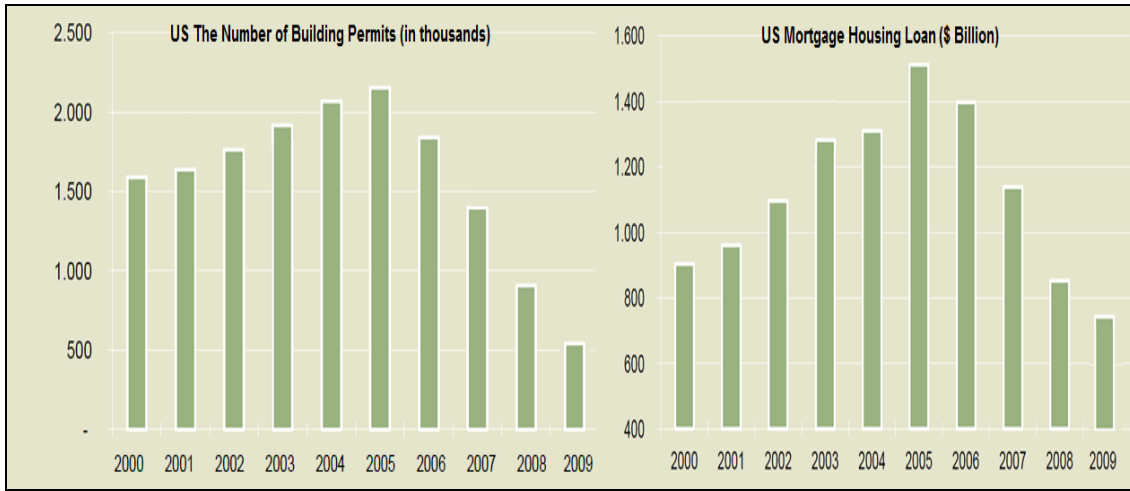


Figure 3.6: The USA Number Of Building Permits & Mortgage Housing Loans

Source: US Census Bureau and Mortgage Banker Association

The housing prices in the USA revealed decrease tendency between 2008-2012 after the crisis and it could proceed to recovery stage as of 2013. It may be easily stated that the housing prices are still below the values before the crisis if we consider price as a criterion. Increase tendency in the housing prices (especially in the countries such as the USA-England-Canada) also continue just like other assets.

3.3. The Turkish Economy and the Status of Real Estate Sector

After the Turkish economy experienced positive growth between 2002 and 2008, it closed 2009 with negative growth as a result of the global crisis. Afterwards, the economic growth performance of the Turkish economy recently, which experienced recovery as of 2010, is fluctuated between 2-4% band. Per capita income increased to 10.400 \$ level from 3,400 \$ level. While the inflation is in the course of digits, the unemployment rates are under 10%. In terms of macro-economic indicators, there is no structural problem that may be considered as important.

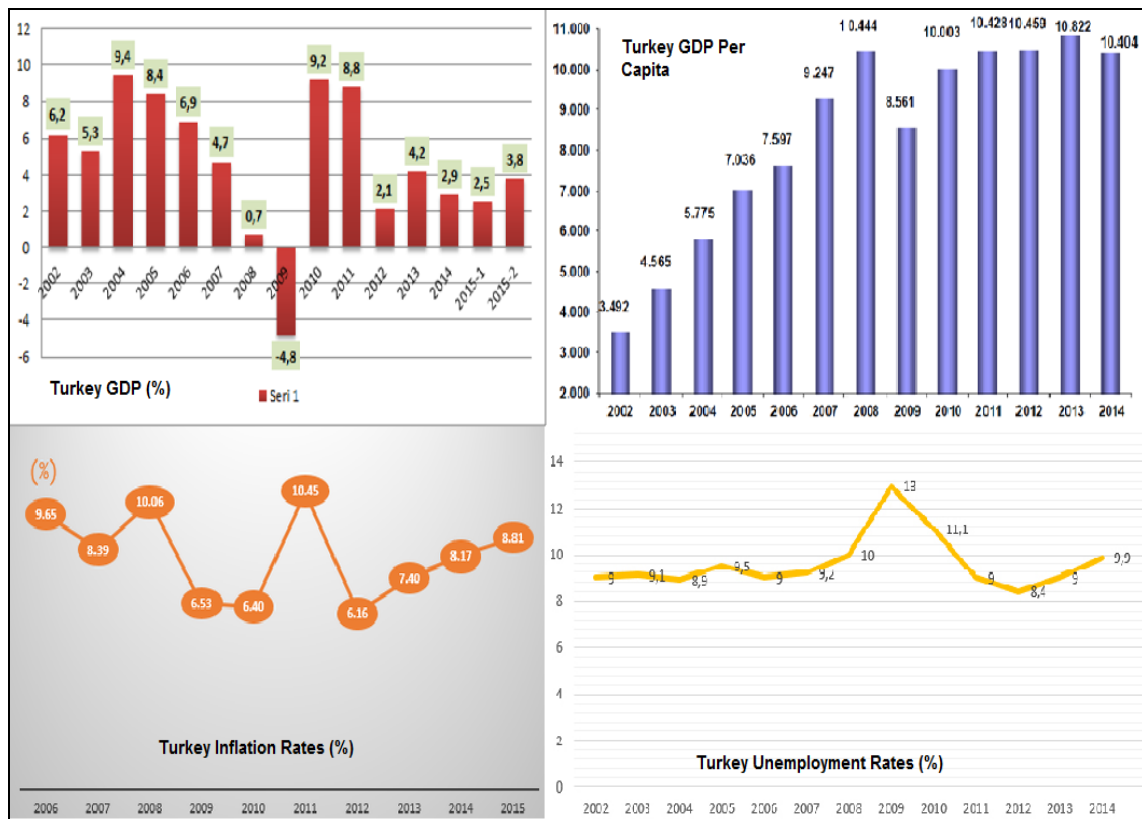


Figure 3.7: Turkey Selected Economic Indicators

Source: TurkStat, Emlak Konut REIC.

Real interest rates are significant indicators that affect the housing prices. Since regression in the interest rates reduces the cost of becoming a house owner, it may lead to an up rise pressure on prices by supporting housing demands. Although the decrease in real interests in Turkey becomes an apparent aspect in global based low interest environment as of 2010, we observe that the increase in housing prices remain in moderate level.

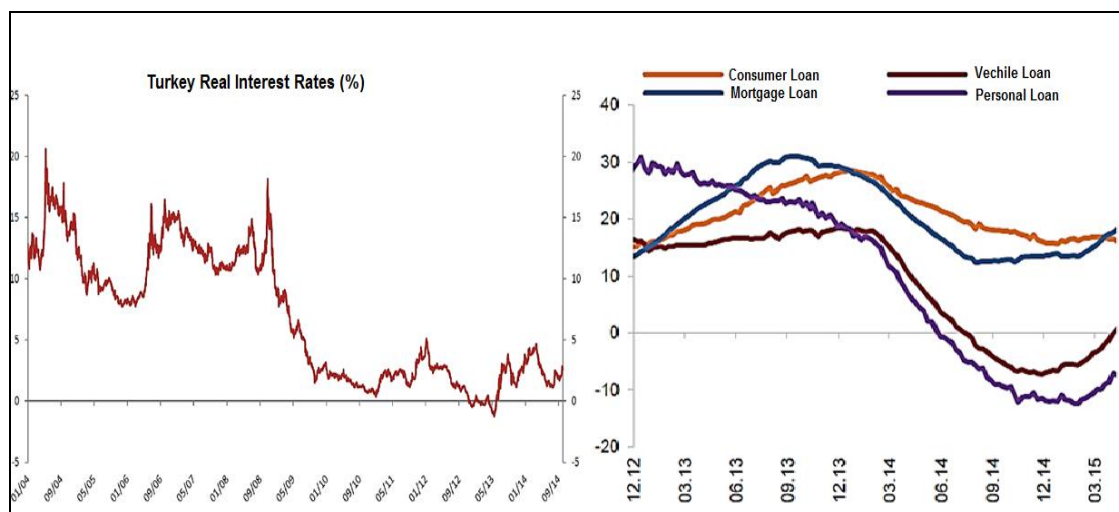


Figure 3.8: Turkey Real Interest Rates And Distribution Of Credits Types

Source: CBRT, BRSA.

Indicative interest regressed to 4,9% in May 2013, which is the lowest level of the history of the republic, and afterwards it started to increase again with the declaration that FED would decrease the monetary expansion. It is observed that the share of housing purchases originating from bank loan regressed a little bit as a result of increasing housing loan interests in the first half of 2014 passes over 2013 in the total of the same year. According to BRSA data, 125 billion amount of housing loan was granted in 2014.

While the economy grows, the real estate sector in Turkey grows with a faster tempo than the economy and provides a positive contribution to the growth, however while the economy gets smaller, it gets smaller with a faster tempo than the economy at the same proportion. The growth of real estate sector follows a similar course with the growth curve of GDP since 1999. In this context, it is possible to identify 2008-2009 as hitting rock bottom, 2010 and 2011 as rapid increase, 2012 as recession, 2013 as steady recovery periods in the time elapsed since the global crisis. 2014 is a year that the acceleration of the previous year is lost.

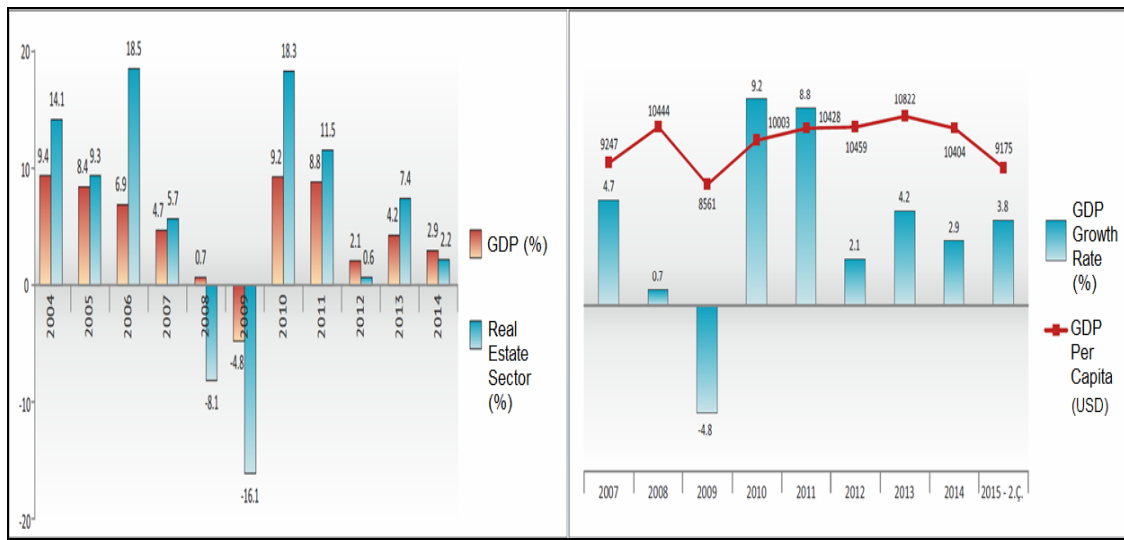


Figure 3.9: Turkey Gdp-Real Estate Sector & Gdp Growth Rate-Per Capita

Source: TurkStat.

Building licenses and utilization permits, which are important indicators about the course of the real estate sector all over the world, start to separate from the previous period in the last decade and the licenses received by years surpass the utilization permits. As the difference between the licenses and the utilization permits occurs in support of the licenses, it may be interpreted as the increase in building block happens over the demands (Turkish Contractors Association, Sector Report 2015: 12).

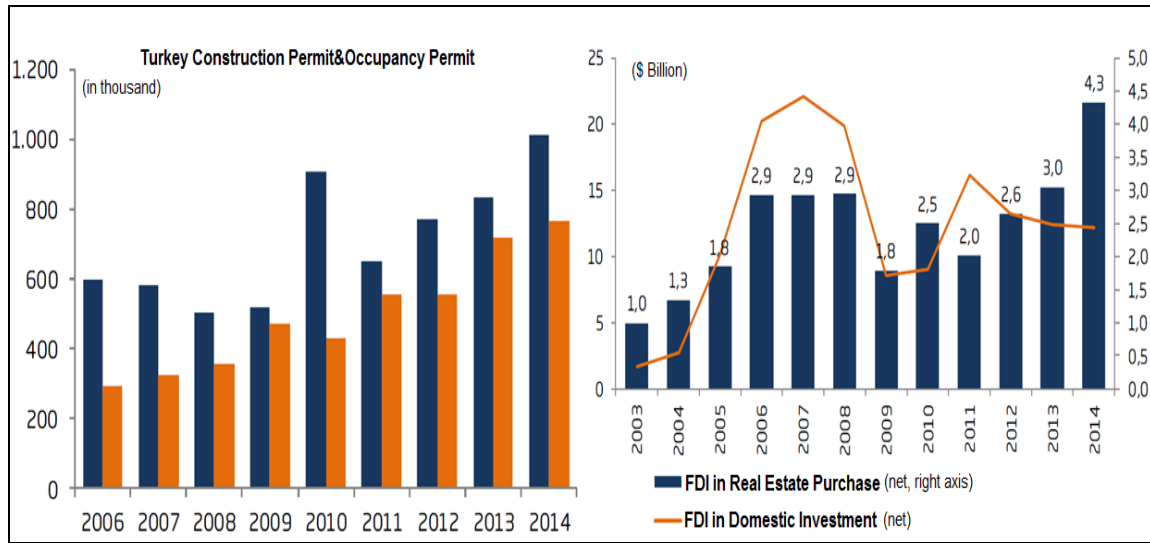


Figure 3.10: Turkey Construction Permit-Occupancy Permit & Fdi In Real Estate Purchase&Domestic Investments

Source: TurkStat.

The housing prices in Turkey between January-2010 and December-2014 show increase at the rate of 75%. The increase in the prices of Istanbul approaches 110%. However, low base effect formed by the prices regressing rapidly in 2008 and later on across Turkey also plays an important role in terms of this increase.

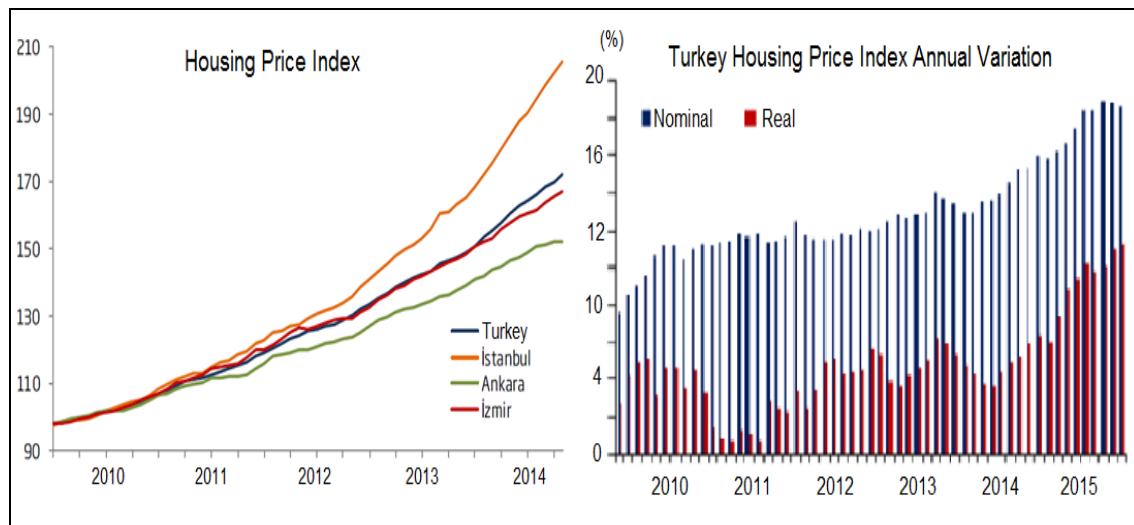


Figure 3.11: Turkey Housing Prices Index & Housing Price Index Annual Variation

Source: CBRT, Emlak Konut REIC.

The Turkish New Housing Price Index (TNHPI: The Turkish New Housing Price Index) (2010=100) calculated by analyzing the valuation reports of the houses constructed in the last two years in 45 cities across Turkey was 185,69 by increasing at 1,35% rate in July 2015 in comparison with the previous month. The index increased at the rate of 17,30% in comparison with the same month of the previous year and it increased at the rate of 9,82% in real terms (Emlak Konut REIC, Turkey Real Estate Sector Report, September 2015: 157).

3.4. Comparison of Turkish and The USA Real Estate Sector, Discussions of Housing Bubble

The data to be obtained related to the housing prices in Turkey are limited and the data does not include previous periods to enable long term analyses. TNHPI, which is based on a suitable and reliable method, is recorded since 2010 by the Central Bank. Regardless of the construction year, the development of housing prices in Turkey are followed with this index by grounding on the expert valuation reports in house loan applications.

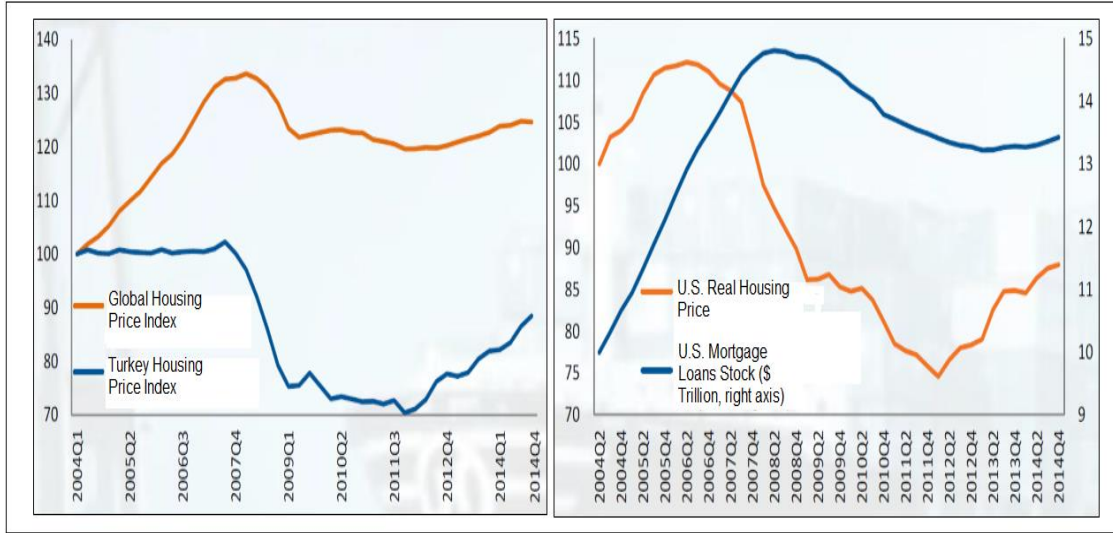


Figure 3.12: Global-Turkey Housing Price Index & The Usa Real Housing Prices-Mortgage Loans

Source: OECD, Halkbank.

One of the most important indicators related to the rationality of the prices on detection of possible negative course in the real estate sector is *price/rent* ratio. The rent is both the return and alternative cost of house ownership and it is expected that the house prices would be in a certain rate with the rent amounts. In order to test the rationality of the house prices, another instrument used is *price/income* ratio. This ratio is achieved by dividing the market value of the houses that the individuals own to their current income. In terms of the ratio of the housing prices and the rents, an increase trend over historical levels may be another indicator leading to expectations on housing bubble (Economic and Social Opinion Research-Development Platform-ESAGEV, 2015: 31).

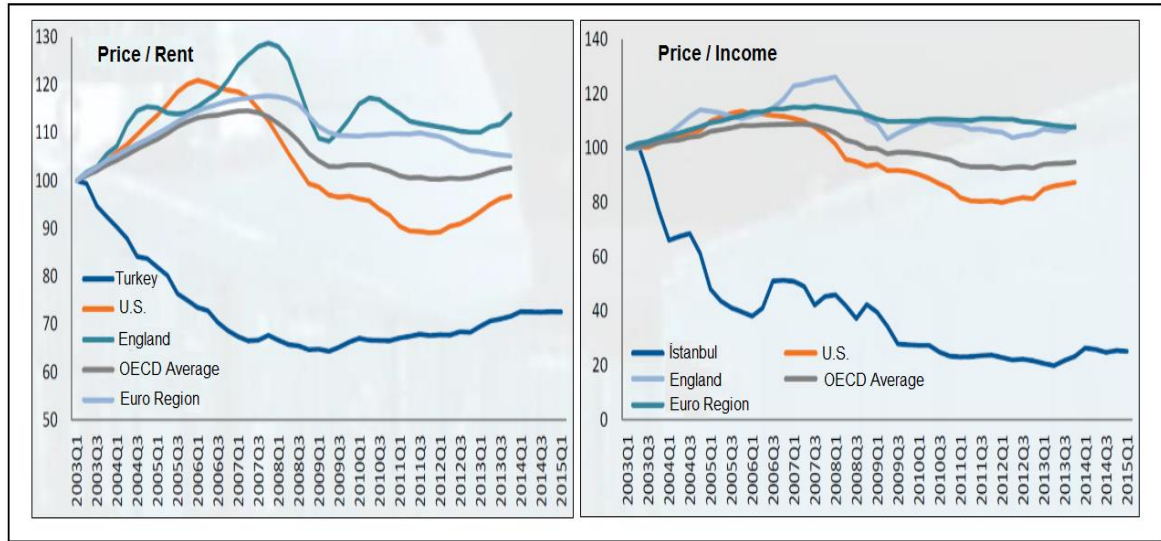


Figure 3.13: Selected Countries Housing Price/Rent & Price/Income Ratio

Source: Halkbank, HalkInvest.

The development of supply and demand indicators related to the housing sector of the last 5 years declared by the Turkish Statistical Institute shows that the sector generally pursues a balanced growth performance except for 2010. Also the recession observed in the sector in the first years of the global crisis is considered to cause overhead supply in 2010.

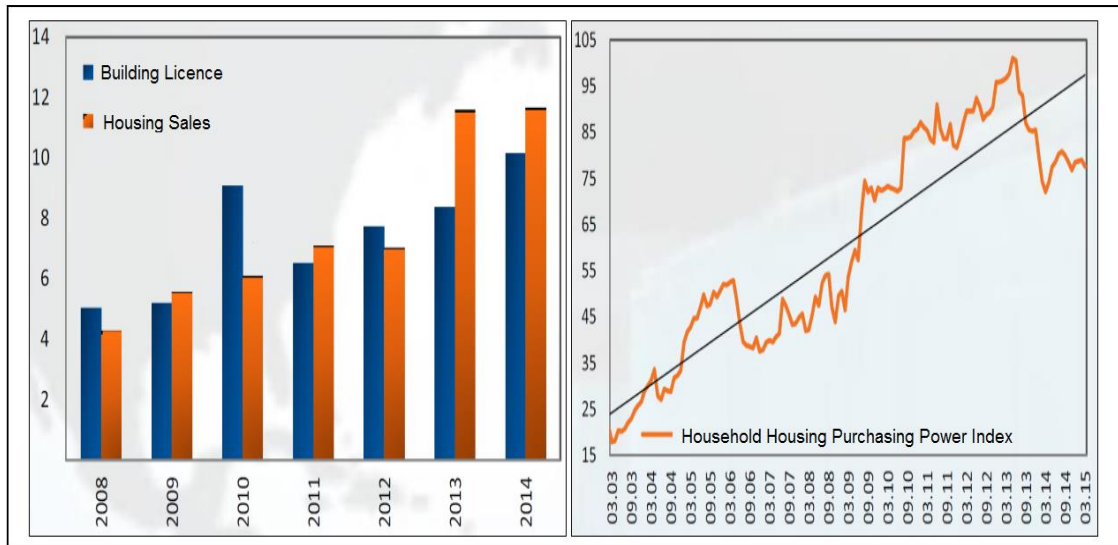


Figure 3.14: Turkey Building License And Housing Sales & Household Housing Purchasing Power Index

Source: TurkStat, Halkbank. (in 100,000)

The data declared regarding 2014 also shows that the economic activities in the sector, similar to general economic developments, start to increase again after the steady slowdown in 2012. Ultimately, "Golden Age" was lived in the housing sales in 2013. While the housing sales in 2013 were 1.157 as they increased 65% in comparison with the same period of the previous year, housing licenses data reached 837 thousand with the increase of 8,5% at the same period. In terms of the rapid increase recorded in the housing sales in this period, it may be considered that the fact of the increase in the VAT rates to be applied to the houses with licenses as of

January 2013 backdated the demands as well as regression of loan costs to the historical low levels. The housing sales are at the level of 1.165 and construction permits are at the level of 1.014 as of the end of 2014 (HalkInvest, 2015 Report).

The possibility of the consumers to buy a house, which generally follows a fluctuating course in the pre-crisis period, was below the average in the period from the last quarter of 2008, the start date of the crisis, until the first half of 2010 and in the forthcoming periods it was over the average value with the regression in the interests in addition to the recovery in the economic activity. The powerful performance of domestic demand in Turkey, which grew rapidly in the post-crisis period, also leads to recovery in the construction sector. This recovery and price developments observed in the construction sector cause concerns that "asset bubble" occurs in the sector from time to time (HalkInvest, 2015).

Another factor raising housing bubbles is the increase observed in the house loan amounts. At the present time, the reason that the public anticipates about a bubble may also be that this issue is mentioned by the media for many times.

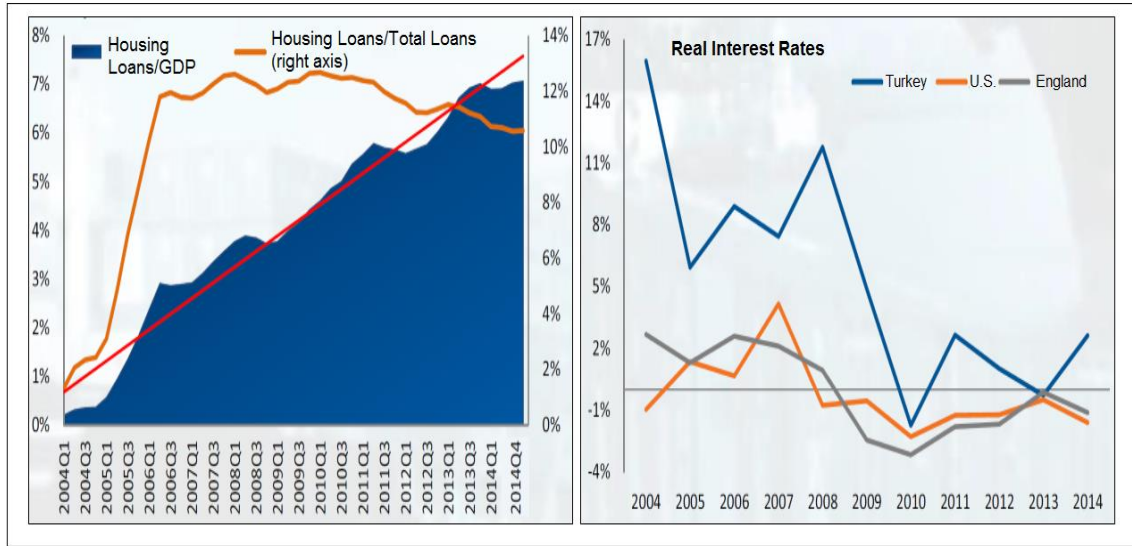


Figure 3.15: Housing Loans/Gdp And Housing Loans/Total Loans & Real Interest Rates

Source: TurkStat, HalkInvest.

A striking increase trend is observed in the house loans, which are one of the important factors of housing demand, by means of the stability provided in the economy and applied structural reforms after 2001 crisis, and regression of loan costs of the household in an environment, in which global liquidity is abounded. However, the fact that current levels in comparison with the national income are quite below the global averages is another relieving indicator in terms of the bubble concerns. In conclusion, credit/GDP rate, which was at the level of 7,0% in Turkey, indicated quite high levels such as 86,5% in the USA, 80,4% in England, 99,2% in the Netherlands and 95,3% in Denmark in 2008, in which the mortgage crisis was experienced (Halk Invest, 2015).

3.5. Is There a Housing Bubble?

When we compare the data in our country with the world housing price statistics, it is observed that the price increases both in Turkey and Istanbul are below the world average. This tendency may be expected to continue in the meaning of real price.

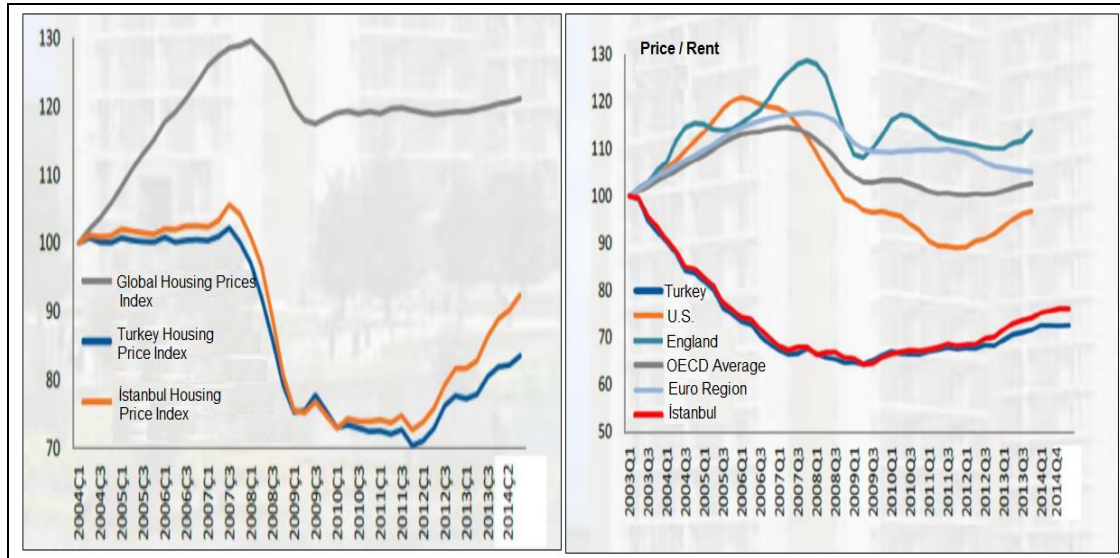


Figure 3.16: Global-Turkey-Istanbul Housing Price Index Comparison & Turkey-Selected Countries Price/Rent Ratio

Source: IMF, OECD, TurkStat, HalkInvest.

When we look at the price/rent ratios; the price/rent ratios in Turkey and İstanbul stand below the OECD countries, Euro Region countries, USA and England. To be able to mention the housing bubble, an upward trend must be observed in the ratios that cannot be explained by fundamental factors such as demand development and cost increases depending on the demographics. Past experiences in the world points to the market sense in the aspect that the prices as the reasons of the housing bubbles will continue to rise expeditiously and continuingly. The graphics below show that the increase in housing prices considerably exceeds the consumer inflation in the periods housing bubble fact was observed in USA and Spain.

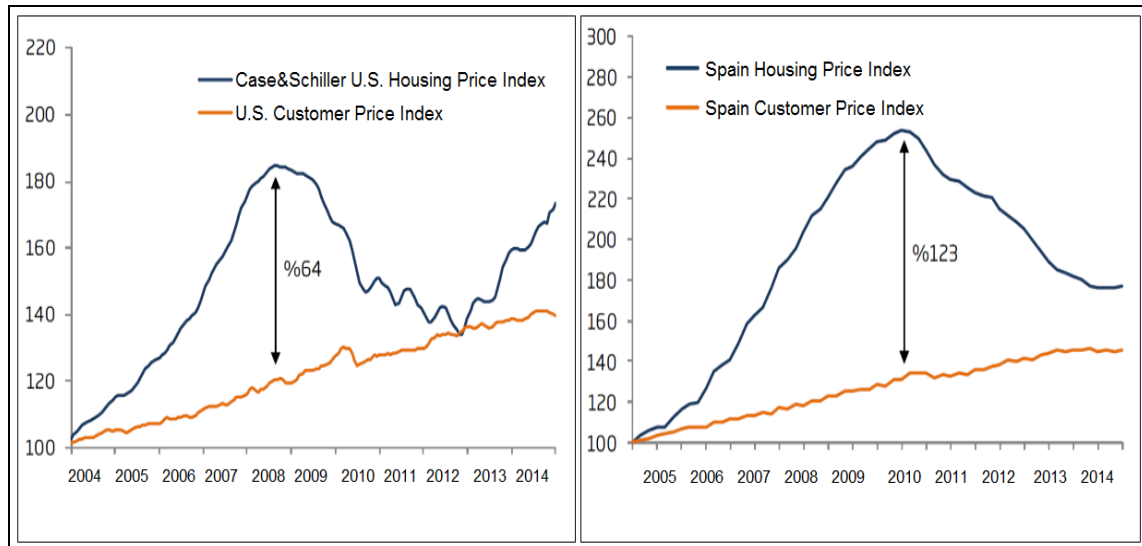


Figure 3.17: The USA & Spain Housing Bubbles

Source: Reuters, Is Bank.

Even though the increase in housing prices is a little above the inflation in Turkey, there are not enough arguments at this stage to claim that this tendency in the prices that can be

explained by basic evaluation criteria of real estate sector points a housing bubble. Despite there are not enough evidence yet concerning the existence of housing bubble in Turkey, it is important that the difference between housing prices and inflation is followed.

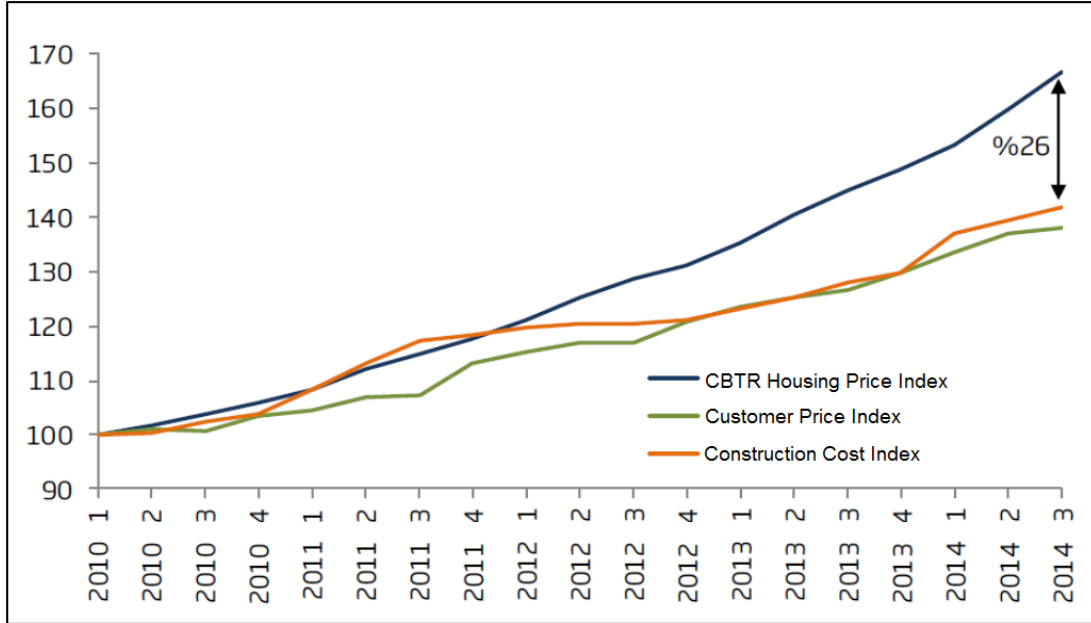


Figure 3.18: Turkey Housing Bubble

Source: Reuters, Is Bank.

It's obvious that the economic structures of the USA financial sector and Turkish financial sector show differences between each other in some points. For example; pension funds and investment banking not being common, mortgage system being brand new etc. the functioning regarding housing loans in the USA economy is different than Turkey. Various securities were written upon subject housing loans in the formation process of the crisis in USA and these securities were insured with derivative products. These securities have reached a lot of investors globally and portfolios were created as to reach key figures especially in USA and Europe. It's needed to highlight that there is no, little if any such status in Turkey. On the other hand, interest rates are not in low levels such as USA, even they are in a status that could be termed high. About the subject of interest rates in USA to be pulled to a limit nearly close to zero, Turkey draws apart as the last period. For the status of Turkish real estate sector, it will be right to use an expression as a matter of supply-demand. There is a significant demand and this demand carries the prices above. In line with the requirements, housing construction in the areas of housing, public, tourism, industry etc. continues. In this regard, it can be found reasonable of the existence of such demand due to the reasons of Turkey's geopolitical structure, a potential earthquake expectation, performing a task to be a bridge between Asia and Europe (Turkey Is Bank Real Estate Sector Report, 2015 April: 26).

4. CONCLUSION AND COMMENTS

If it was possible to know the crises or asset bubbles in advance, necessary precautions would be taken for a situation like this and there wouldn't be a situation of crises by abolishing the reasons leading to crisis. Therefore, it's not easy to say that there is a housing bubble in Turkey. More precisely, it was mentioned above by means of various indications that it's hard to think that a probable future crisis will be originated from housing sector. The primary factor that may cause the crisis in Turkey is private sector having high payables to foreign countries in foreign currency. In an environment that the excessive rise of the exchange rate may start in a

short time, it can play an active role on behalf of a crisis originated from the high debt ratio of the private sector that may occur in our country.

After the global crisis of 2008, while the demand observed in the housing sector in Turkey maintains its strong presence, it is remarkable that the same situation is not true for USA. When the differences in both countries' populations are taken into consideration, low performance observed in the sector draws attention while it's expected to have a housing demand close to pre-crisis period in USA and similar to the growth in demand in Turkey in terms of housing demand. In USA where 50% of decrease in housing production is observed according to the pre-crisis situation, purchasing power which is a strong component of the demand has a big importance. On the other hand, when it is compared to USA, while the mortgage financing primary market makes an extremely limited progress, secondary market not being developed takes places among the reasons that prevent the problems faced in USA to appear in our country, too. In this sense, securization operations which take place among the reasons of the global crisis in USA and the funds obtained by selling derivative products developed this way losing their old popularity takes place among the most important reasons of the decrease in housing production and sales. In Turkey, inexistence of the financing system of USA in housing sales financing has prevented a similar scene to happen in housing demand and sales after the crisis period. As a result, by easing the borrowing a loan of an individual with the effect of the foreign-based portfolio flows, financing act of housing demand was established. In the situation that the strong purchasing feeling supports the purchasing power in ways such as credit etc., it's possible to say that housing production and sales in Turkey will go on.

It is a must to take some precautions for the uneasiness that the companies with weak capitals in real estate sector cause not to reach the size will affect the economy of the country. In this frame, it is considered as a reasonable decision forbidding sale of housing from a model. Additionally, it is useful to transmit the necessity of interest rates, credit rates to be used and vat regulations in housing to be in the optimum limits. On the other hand, it is possible to see the new housing project areas coming into prominence with rapid population growth, urban transformation projects, third bridge project, 3rd Airport project, Istanbul Finance Center, Channel Istanbul and the expected increase in housing sales to foreigners as the projects expected to affect the real estate sector in a positive way. Another subject is that lately the increase in the real estate sector is specifically provided by the public sector and in addition to that, there should be private sector investments and expenses as well. If inspection and transparency cannot be enhanced in Turkey, the status may be similar to the one USA went through. The functions of the inspection bodies should be increased.

REFERENCES

- Banking Regulation Supervision Agency-BRSA (BDDK). [Çevrim-içi: <http://www.bddk.org.tr/WebSitesi/English.aspx>], Erişim tarihi: 25.12.2015.
- Beachy, B. (2012). A Financial Crisis Manual Causes, Consequences and Lessons of the Financial Crisis. *Global Development and Environment Institute Working Paper*, No.12-06, [Available online at: http://www.ase.tufts.edu/gdae/publications/working_papers/index.html], Retrieved on December 8, 2015.
- Bloomberg Business. [Available online at: <http://www.bloomberg.com/news/world>], Retrieved on November 17, 2015.
- Engelen, K. C. (2008). The Post-Subprime Regulation Scramble, *The Magazine of International Economic Policy*, 22(1):62-69.
- EK Real Estate Investment Company-EK REIC (EKGYO). Real Estate Sector Report 2015 September, [Çevrim-içi: <http://www.emlakkonut.com.tr/default>], Erişim tarihi: 05.01.2016.
- Economic and Social Opinion Research-Development Platform (ESAGEV). [Çevrim-içi: <http://www.esagev.org/Makale/Index3?cId=1&rId=3037>], Erişim tarihi: 13.12.2015.

Federal Reserve Bank (FED) Economic Research & Data US Census Bureau. [Available online at: <https://research.stlouisfed.org/fred2/source?soid=19>], Retrieved on January 7, 2016.

Halk Bank HalkInvest. Real Estate Sector Report 2015. [Çevrim-içi: http://www.halkyatirim.com.tr/Upload/3042015_9479471.pdf], Erişim tarihi: 03.01.2016.

Independent Industrialists' and Businessmen's Association (MUSIAD), [Çevrim-içi: <http://www.musiad.org.tr/en>], Erişim tarihi: 23.12.2015.

Institute of Strategic Thinking (TSDE), [Çevrim-içi: <http://www.sde.org.tr/en/default>], Erişim tarihi: 28.11.2015.

IMF Global Housing Watch Reports. (2015). [Available online at: <https://www.imf.org/external/research/housing/>], Retrieved on December 18, 2015.

IMF World Economic Outlook Database. [Available online at: <https://www.imf.org/external/pubs/ft/weo/2015/02/weodata/index.aspx>], Retrieved on December 19, 2015.

OECD Statistics. [Available online at: <http://stats.oecd.org/>], Retrieved on November 20, 2015.

Republic of Turkey Prime Ministry Investment Support and Promotion Agency&Deloitte. Turkey Real Estate Sector Report. (2010). [Çevrim-içi: www.invest.gov.tr/tr-TR], Erişim tarihi: 22.12.2015.

The Association of Real Estate and Real Estate Investment Companies (GYODER). [Çevrim-içi: <http://www.gyoder.org.tr/en/>], Erişim tarihi: 10.01.2016.

The Banks Association of Turkey (TBB). [Çevrim-içi: <https://www.tbb.org.tr/en/home>], Erişim tarihi: 14.01.2016.

The Central Bank of the Republic of Turkey-CBRT (TCMB). [Çevrim-içi: <http://www.tcmb.gov.tr/wps/wcm/connect/tcmb+en/tcmb+en>], Erişim tarihi: 14.01.2016.

The Economist Journal. [Available online at: <http://www.economist.com/>], Retrieved on November 17, 2015.

The Guardian. [Available online at: <http://www.theguardian.com/international>], Retrieved on December 15, 2015.

The Turkish Industry & Business Association (TUSIAD). [Çevrim-içi: <http://tusiad.org/tr/>], Erişim tarihi: 24.01.2016.

Turkey Is Bank. Real Estate Sector Report-2015 April. [Çevrim-içi: <http://www.isbank.com.tr>], Erişim tarihi: 21.12.2015.

Turkish Contractors Association (TMB). 2015 Real Estate Sector Report. [Çevrim-içi: <http://www.tmb.org.tr/>], Erişim tarihi: 19.12.2015.

Turkish Statistical Institute (TurkStat-TUIK). [Çevrim-içi: <http://www.turkstat.gov.tr/Start.do>], Erişim tarihi: 09.11.2015.

US Federal Housing Finance Agency US Department of Commerce. [Available online at: <http://www.fhfa.gov/>], Retrieved on January 12, 2016.

U.S. Department of Labor. [Available online at: <http://www.dol.gov/>], Retrieved on December 8, 2015.

World Bank Development Indicators. [Available online at: <http://data.worldbank.org/data-catalog/world-development-indicators>], Retrieved on November 29, 2015.