

## SECURITIZATION IN THE UNITED STATES OF AMERICA AND THE EUROPEAN UNION: DOES IT WORK IN TURKEY?

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### ABSTRACT

Securitization is a process in which different assets or portfolios of cash own generating securities are pooled together and then sold to third parties. Recent global financial crisis demonstrate the need to create and implement regulatory frameworks that balance financial markets. In this context, Europeans have watched in bewilderment and amazement as the USA mortgage market cratered.

The purpose of this article is to research the differences of securitisation between the USA and the European Union from a macroeconomic perspective. There is considerable evidence that securitisation in the USA and the EU indicate structural differences. Securitisation in most of the economies in the world is an attractive and potentially large source of long-term funding for mortgage markets. In addition, securitisation can be found both in developed and in emerging countries.

Every year, all over the world, approximately US\$5 trillion worth of funds are transferred to homebuyers over the capital markets. The lack of a modern housing finance system in Turkey prevents from taking advantage of these widely available funds and services.

In this regard, another objective is to capture key trends for the securitisation in Turkey via secondary mortgage markets. The Mortgage Law was approved in March 2007 by the Turkish Grand Nation Assembly. This law encourages securitisations of mortgage loans in the best advantages of the financial systems and the borrowers. Because of its benefits; further encouragement should be provided for promoting securitisation in Turkey.

**Key Words:** *The EU, Securitisation, The USA, Turkey, Macroeconomy.*

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## AMERİKA BİRLEŞİK DEVLETLERİ VE AVRUPA BİRLİĞİ'NDE MENKUL KIYMETLEŞTİRME: TÜRKİYE'DE UYGULANABİLİR Mİ?

### ÖZET

Menkul kıymetleştirme, nakit sahip olunan farklı varlık veya tahvillerin, menkul değerler ile birlikte toplandığı ve sonra da üçüncü bir yatırımcıya satıldığı bir süreçtir. Yaşanılan global kriz, finansal piyasaların dengelenmesi için düzenleyici kuralların yaratılıp uygulanması gereğini göstermektedir. Bu anlamda, Avrupa'lılar ABD'nin mortgage piyasasında yaşadığı düşüşünü hayretle ve şaşkınlıkla karşılamaktadırlar.

Bu çalışmamızın amacı, ABD ve AB'deki menkul kıymetleştirmedeki farklılıkları makro ekonomi açısından araştırmaktır. Anılan ülkeler arasındaki menkul kıymetleştirmenin yapısal farklılıklar gösterdiğine ait yeterli kanıtlar mevcuttur.

Menkul kıymetleştirme dünyanın çoğu ekonomilerindeki mortgage piyasaları için uzun erimli fon sağlamada cazip ve potansiyel geniş bir kaynaktır. Buna ilave olarak, menkul kıymetleştirme hem gelişmiş hem de gelişmekte olan ülkelerde görülmektedir. Dünya çapında her yıl konut alanlara yaklaşık 5 trilyon dolar sermaye piyasalarınca transfer edilmektedir. Türkiye'de bu türden modern bir konut finansmanının olmaması ülkemizi bu olanaktan yoksun bırakmaktadır. Bu anlamda, çalışmanın bir diğer amacı menkul kıymetleştirme ile ilgili anahtar trendleri ikincil mortgage marketler yoluyla elde etmektir. Türkiye Büyük Millet Meclisi'nde Mortgage Yasası 2007 Mart ayında kabul edildi. Bu yasa mortgage ile finans sistemine ve konut almak için borçlananlara en iyi avantajı kredilerle sağlayıp menkul kıymetleştirmeyi teşvik etmektedir. Getirdiği faydalarından dolayı da menkul kıymetleştirmeyi Türkiye'de tutundurmak için ona daha fazla ileri teşvikler sağlanmalıdır.

*Anahtar Kelimeler:* AB, Menkul kıymetleştirme, ABD, Türkiye, Makroekonomi.

### 1. INTRODUCTION

A mortgage market can foster the development of the financial sector and raise economic growth. If supported by reforms that promote the domestic demand for long-term debt—the development of private pension funds, for example—mortgage-linked debt instruments can become the basis for deeper capital markets.

After successful securitisation by public sector entities in advanced economies, also in developing countries are gaining experience in

understanding the concept of securitisation as a innovative structured finance technique to manage the risks and funding requirements of infrastructure investments. A country must have a sufficient legal, regulatory and primary market infrastructure in place before mortgage securitisation will take hold.

The European Commission has made a sound business case for introducing mortgage credit legislation. While the Commission states that it wishes to foster further integration of EU mortgage markets, the Impact Assessment does not make a strong enough case that this very consumer protection-oriented text will achieve this. Household buying power, low interest rates, notably in the US, increases in property prices and the ever present pressures to consume, household debt has spiralled not only in the US, but also in the UK, Ireland, Spain and other EU countries. Industrialized countries' efforts to liberalize financial markets in the 1980s eliminated many of the restrictions that previously limited the scope of mortgage lending. Mortgage markets in the US were built upon clear titles, secure collateralization, enforceable contracts default and foreclosure remedies, and other institutions. Without these institutions, real assets such as land and buildings cannot be securitized.

With a population of over 74 million, Turkey has a lucrative mortgage market potential. In other words, real estate has been the primary investment choice in the country due to decades of high inflation and an unstable economy, along with an unsophisticated investor profile to profit from stock markets, equities, bonds, bills, etc. On the other hand, a growing mortgage market in Turkey will fuel demand for housing sector. In addition, the improvements achieved on the macroeconomy since the 2008 crisis, and the associated gains in the market value of Turkish assets, are impressive.

The paper is structured as follows. Section 2 discusses the US securitisation versus European mortgage markets. Section 3 gives highlighting the impact of Euro by comparing the situation in several European Union countries, where the mortgage markets have followed a different course. Section 4 gives a brief insight into macroeconomic analysis of Turkish economy and mortgage securitisation. Section 5 concludes.

## **2.THE US SECURITISATION VERSUS EUROPEAN MORTGAGE MARKETS**

Securitisation was first introduced on U.S mortgage markets in the 1970s and took off in the 1980s. Mortgage securitisation has worked

reasonably well in the US until 2008 sub-prime mortgage crisis; It has allowed borrowers to raise funds cheaply and quickly because of the efficiency of the US bond market system, which is almost unique. Securitisation market has grown to become one of the most prominent fixed income sectors in the U.S and in fact one of the fastest evolving sectors around the world. Generally speaking, the asset securitisation market is composed of asset backed securities (ABS), mortgage-backed securities (MBS) and collateralized debt obligations (CDO).

Various factors affect the percentage of home ownership, including availability of credit, availability of housing stock, perceived value of home ownership in the society and other historical legacies, and governmental support levels which may encourage ownership or rental, including tax treatment. (Serge, 2010: p.2)

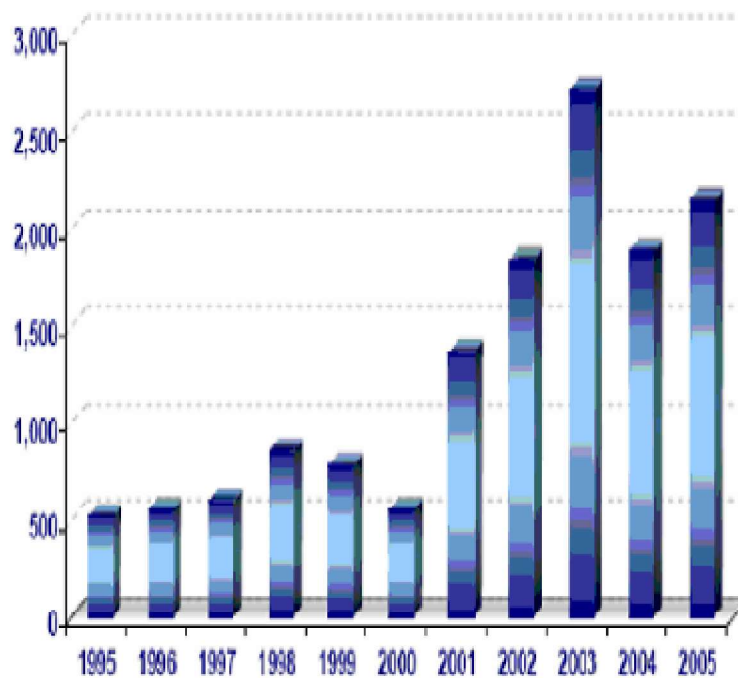
The US mortgage market took 150 years to develop. In the USA about 50 per cent of all outstanding residential mortgages at the end of 1997 were securitised and this amounted to about \$2 trillion out of a total market of \$4.1 trillion. (Coles and Hardt, 2000: p.780)

Securitisation began in the 1970s with mortgage pools and selling those mortgage pools to certain government sponsored entities. In this regard, the government-sponsored entities, in turn, guaranteed the cash flow from the mortgage pools and sold securities called mortgage backed securities (MBS) backed by the guaranteed cash flow from the mortgage pools. Pools of mortgages (MBS) and mortgage – backed debt now trade in national and international markets, almost as efficiently as US Treasury securities. (Order Van, 2003: p.2) Why we focus on secondary mortgage markets, when the primary markets in our country are still in their infancy? First, secondary markets complement and support the development of primary markets. Second, development of secondary mortgage markets is the critical factor to catalyze greater standardization of laws, underwriting practices, and documentation only within countries but also between countries. For example, in the USA the establishment of Fannie Mae and Freddie Mac spurred standardization and led to one of the deepest mortgage finance markets in the world. Third, changes in primary markets affect the development of secondary markets. (Lanza, 2003: p.8)

The market for MBS was boosted by the government agencies that endorsed these securities. In the 1990s, one particular aspect of the US mortgage securitisation came into fashion worldwide. Since the early 1990s, 24 countries in the world have issued some forms of MBS.

As it can be seen from Figure 1 at the below that; the growth of MBS in the US market during the past two decades stemmed at least partially from the critical enabling ingredients that were in place, both within the system - e.g risk-sharing arrangements, deposit insurance and conforming loan products - and outside the system - stable macroeconomic conditions, depth in the corporate and government bond markets and a sound banking system-.

**Figure1: Mortgage -Backed Securities in the U.S.A Between 1995-2005 Period**



**Source:** TheBond Market Association-BMA, 2006.

After the success of these initial transactions, securitisation issues were backed by an increasingly diverse and ever-expanding array of assets, including corporate assets such as lease receivables and bank assets such as payments associated with corporate loans.

The federal agencies can insist on loans having particular characteristics before they are able to publish uniform, widely available mortgage rate benchmarks in order to facilitate comparison shopping by borrowers. There is no such standardisation process exists in Europe. In order to incentivize stronger issuer due diligence effort, European Union (The EU ) and Unites States of America (The USA) authorities are amending securitization-related regulations to force issuers to retain an economic interest in the securitization products they issue. The idea is that if loan originators and securitizers have more skin in the game they will more diligently screen the loans they originate and securitize. (Kif and Kisser, 2011: 1)

On the other hand, according to Coles and Hardt's 2000 study; Table 1 summarises the argument developed below and compares the position in Unites States of America with that in European Union. Therefore, as interest rates skyrocketed in the early 1980s, ''Private Label'', mortgage securities become increasingly popular. Private label mortgage securities involved issuances of Mortgage Backed Securities (MBS) by entities other than Fannie Mae, Ginnie Mae and Freddie Mae.



We also explore connections between the national housing factor and other economic indicators including US monetary policy, population growth, real economic activity, general inflation and other asset prices. Particularly, we find monetary expansion does seem to affect national home price appreciation. Increases in the pace of real economic activity are positively correlated with housing prices, while stock price appreciation doesn't have any apparent link with housing price gains. (Fu, 2007: 20 )

In November 2008, the Federal Reserve announced the purchase of up to \$100 billion of government sponsored enterprises (GSE) debt and up to \$500 billion in mortgage-backed securities. In March 2009, the Federal Reserve announced the purchase of up to \$300 billion of longer-term Treasury securities in addition to increasing its purchases of GSE debt and mortgage-backed securities of up to \$300 billion and \$1.25 trillion, respectively. As a result of these actions, from December 2008 to March 2010, the Federal Reserve purchased \$1.7 trillion in medium- and long-term Treasury, agency, and agency mortgage-backed securities. (Mederios, 2011: 5) Many countries do not currently have effective ways of linking mortgage markets with capital markets. Secondary markets might be particularly good way of tapping international capital markets, particularly for long-term loans. This can be a significant contribution to developing countries. Moreover, a well-run secondary mortgage market can provide stimulus to bond market development in general. (Order Van, 2003: 5 )

In the aftermath of the global financial crisis, European and US authorities are putting in place new regulations that will force securitizers to retain economic exposure to the assets that they securitize assets in order to better align their interests with those of investors. More specifically, the Article 122a of the European Capital Requirements Directive and Section 941 of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act both impose a five percent minimum credit risk retention rate. The European version allows for several options, including retaining just the equity tranche, or equal amounts of all tranches. (Kif and Kisser, 2011: 2)

### **3. INTRODUCTION OF THE EURO AND SECURITISATION IN THE EUROPEAN UNION**

Securitisation can be defined as the process whereby loans, receivables and other financial assets are pooled together, with their cash



flows or economic values redirected to support payments on related securities.

In this regard, securitisation was developed first in the U.S as part of a public policy initiative to make more funds available for residential mortgage loans. Later on, additional sponsorship has been provided by a certain number of government agencies carrying implicit US government guarantees.

Due to the differences in the assets related to these securities, the relevant pricing factors for these securities should differ, too capital market, in which the securities are issued and traded, is composed of three main categories: ABS, MBS, and CDOs. The capital market distinguishes between these classes of securities. As a rule of thumb, securitisation issues backed by mortgages are called MBS, securitisation issues backed by debt obligations are called CDO, and securitisation issues backed by consumer-backed products are called ABS. (Vink and Thibeault, 2007: 3)

On the other hand, European countries rarely used securitisation before the introduction of the Euro. In the last decade, however, there has been a spectacular increase in securitisation activity in the Euro area. This is partly a global trend but the escalation in securitisation activity is also linked to other factors such as the closer integration in European financial markets as well as a move towards a more market-based financial system. (Altunbaş et al, 2007: p.3) According to the ECB paper report; in many Euro Area countries, “some loans for house purchase explicitly provide for payment flexibility during the contract period, especially in the case of an income shortfall”. Moreover, repossession proceedings, considered a last resort, require debt counseling or negotiations between lenders and borrowers, either as part of the foreclosure process or as a pre-condition for its commencement.

Differences in public attitudes and public policy, however, play a significant role in explaining the differences between the EU and the US. Greater EU societal support for homeowners, which translates into the greater consumer protections that apply, and the degree of governmental control over lenders’ practices, help to explain their disparate responses in the arena of home mortgage difficulties over the past several years. (Serge, 2010: 14)

An important difference between the US and the European Market is the pre-payment risk. On early repayment penalties, there are significant differences in national laws. In European countries with a variable rate

tradition such as the UK, the pre-payment risk does not exist. In other countries, lenders offerings fixed-rate products are allowed to recover their losses by charging a redemption fee. A number of countries have introduced rules that limit pre-payment penalties charged to consumers. This has complicated the funding process and has resulted in mismatching. (Coles and Hardt, 2007: 778 )

Asset securitisation came to Europe in the early 1990's, but issues and volumes have only increased significantly since 1997/1998. Compared to the volume of the worldwide ABS market being estimated today at 7.000 billion USD, the size of the European ABS market stil remains relatively modest. Adding up European gross issues of the last five years, the overall ABS market amounts to approximately 550 billion Euro, representing less than 10% of the global market.

At the same time, a variety of funding instruments is used in mortgage business in Europe, more than 60% of which is still funded by deposits. A mortgage – backed security (MBS) is either an ownership claim in a pool of mortgages or an obligation that is secured by such a pool. MBS are attractive investments for investors reasons such such as high return and no default risk, diversification, and promotion of desirable social goals.

With regard to assets, MBS represent the most important asset class in Europe, holding an average 1/3 of the total ABS market. In the second quarter of 2002, MBS issues represented as much as 56% of European securitised assets. Of the 31 billion Euro total ABS issuance during this period, residential MBS totalled over 15 billion Euro, a share of 48%, whereas commercial property issuances hold an 8% market share.

In Europe, despite deregulation, the member states retain marked differences in their financing systems. For instance, several member states - Austria, Germany, Denmark, Sweden- retain specialised financing networks, whilst in other member states specialists have disappeared, mortgage credit being part of the range of basic products offered by any institution on the market. This explains the considerable diversity between the various types of mortgage loans offered to consumers, and the funding mechanism.

Even though, many of the European economies are experiencing mortgage market booms; why has securitisation not grown more rapidly on European Markets? According to recent figures, less than 2 percent of outstanding mortgage loans in Europe are currently funded through securitisation. Given its apparent benefits it is surprising that the

securitisation market has not grown as quickly as was predicted in the mid-to late 1980s. Reasons include (Coles and Hardt, 2000: 780) ;

**a) Capital requirements:**

Securitisation in Europe remains relatively costly and capital intensive. Indeed, the 98 / 32 / EC directive allows for a 50 percent weighting of MBS, a less favourable weighting than that enjoyed by the securities issued by the US federal agencies.

**b) The existence of competitive on – balance sheet funding instrument:**

Given the relatively expensive structure of MBS issues in Europe, a number of European countries are currently introducing mortgage-backed bonds, i.e on – balance sheet securitisation. Because of their reputation and their legal structure, mortgage banks enjoy a funding advantage which can be as much as 20 to 30 basis points over government bonds. Typically, MBS currently trade with an average margin of 75bp to 150 bp over German government bonds.

**c) State guarantees:**

Articles 92 and 93 of the EC treaty outlaw state aid in the form of guarantees as there may be an element of unfair competition. Therefore, although some EU member states have centralised issuing institutions that pool mortgages from a number of lenders and are owned by private shareholders, EU member states are not allowed to create National Agencies similar to the American Federal Agencies.

**d) Lack of consistent data:**

Because of the diversity of European regulations there is a lack of available data in many fields including property valuation, defaults and forced sale procedures and early repayment.

This makes the pricing of securities more difficult.

**e) Legal complexities and lack of standardisation:**

The time taken to foreclosure may vary substantially and consumer protection regulation may not allow the mortgage lender to foreclosure. Other problems include fiscal and legal difficulties such as the lack of harmonisation between the Roman and common law systems as regards the transfer of assets. The lack of standardisation in Europe results in a great variety of products such as variable rate loans. These are more difficult to securitise as it is not possible to predict the likely return for the holders of the securities.

Therefore, as it can be seen from Table 2 an explanation related to the European Securitisation by country is given below;

- **The UK** is the most advanced issuance country in terms of portfolio types being securitised, since it includes property specific pools of loans and credit lease portfolios as well. One reason for the leading role of the UK is its creditor friendly legal environment and the strong position of secured creditors in case of default. Issuance of securities with collateral originated in the UK nearly doubled to 154.0 billion in the first nine months of the year, from the 77.2 billion issued in the same period one year ago.

- **Spanish** securitised issuance ranked second, increasing the Spanish volume to 30.3 billion over the first three quarters of the year, a 32.3 per cent increase from the 22.8 billion during the same period a year ago. While the Spanish RMBS market was marginally behind UK in volume terms, its growth was much more spectacular.

- **Germany** ranked third of 23.2 billion compared to 16.2 billion issued in the first nine months of 2005. The **German** MBS market is essentially characterised by synthetic securitisations and not by true sale transactions. In terms of volume, the market is lagging behind the Spanish market and it is still very fragmented in terms of size, structure and underlying assets.

- **Dutch** issuances reached 20.0 billion through the first three quarters of the year, a slight decline from 21.1 billion of one year ago.

- **Italian** banks really entered into the securitisation business only in 2000. Specific securitisation rules had been introduced just before with the aim of boosting this market segment. The Italian volume was virtually unchanged from last year at 17.3 billion.

- **Irish** issuance continued to surge through the third quarter and securitised issuance from Ireland continued to be strong and had the largest increase thus for this year, with 15.3 billion compared to the 3.4 billion just one year ago.

**Table 2:** European securitisation by country of collateral ( billions )

Country	2005-03 YTD	2006-03 YTD	Annual Change
Austria	0.25	-	-0.25
Czech Rep.	-	0.17	0.17
France	4.29	7.28	2.99
Germany	16.23	23.15	6.92
Greece	2.25	2.95	0.70
Ireland	3.35	15.25	11.90
Luxemburg	-	0.33	0.33
Nedherland	21.12	19.95	-1.17
Portugal	3.28	4.87	1.59
Russia	0.04	1.13	1.09
Spain	22.82	30.25	7.43
Sweden	0.28	0.18	-0.10
Turkey	2.26	1.06	-1.20
UK	77.15	153.95	76.81
Multinational	12.57	5.20	-7.37
Total	183.74	282.99	99.25

\*Underlying collateral more than one country.

**Sources:** Dealogic, Thomson Financial, J.P Morgan Securities Inc, Structured Finance International, 2008.

- **Russian** issuance has emerged in 2006, increasing to 1.1 billion in issuance in the first three quarters, compared to 36 million in the same period last year, while **Turkey** issuance decreased to 1.1 billion, from the 2.3 billion one year ago.

In this context, EU accession added further impetus in some countries. For example; joining the EU in 1986 significantly changed the prospects for future macroeconomic and political stability in Spain. Most of these countries had introduced mortgage legislation as part of their transition to market economies. In Europe, institutions have not generally suffered a lack of capital. Indeed, the contrary-over capitalisation of institutions-is the rule in many cases. Over capitalisation may mean that capital is not used as efficiently in Europe as it is in the US. (Coles and Hardt, 2000: 781 )

Therefore, 95% of all securitization issuance in Europe for 2008 was retained for repo purposes, notably with the ECB. Indeed, these EU markets seem more resilient and less vulnerable to the problems the US has experienced.

#### **4. MORTGAGE SECURITISATION AND MACROECONOMIC STABILITY IN TURKEY**

World-wide, there is no universally applicable model of a housing finance system. However, the introduction of functioning housing finance markets provides large external benefits to the national economy in terms of employment, property development, capital market development, efficient resources allocation and lower macro economic volatility.

The greater securitisation of housing mortgages means that financial institution may also be shielded from the increase. The end holders of the securitised product, which are generally pension funds, may thus be most exposed to the risk. (Debelle, 2004: 23 ) The asset structure of the banking sector has changed significantly since the financial crisis in Turkey. Increased macroeconomic stability, more stable sources of funding and easier access to working capital have contributed to a gradual restructuring of the banking sector's asset structure. Liquidity is also affected by securitisation because of the short-term inflow caused by the sale of ABS - Asset Backed Securities - that modify the standart liquidity ratio. More broadly, securitisation provides banks with additional flexibility to face changes in market conditions associated with monetary policy movements.(Altunbaş, 2007: 4 )

##### **4.1 Macroeconomic Stability and Mortgage Market in Turkey**

Mortgage finance and development related to mortgage market reflects very positive economic developments over the last few years in Turkey; those are, macroeconomic stability, declining inflation and growing incomes, combined with progress made in legal reform and liquid banking system looking for good lending opportunities.

A true " mortgage " market is possible only in a society with clear laws establishing private property rights and with an effective transparent court system that enforces these rights. After private property rights are effectively established, a functioning mortgage market and helpful secondary

mortgage can develop. (Ambrose, 2007: 4) Another vital component of a mortgage market, especially an emerging mortgage market is a functioning banking system. Securitisation provides an alternative way for banks to maintain the credit relationship with the client by simply bundling together some loans into tradeable securities and selling them on to the secondary market. This has major consequences for the standart money transmission mechanism. (Altunbaş, 2007: 9 )

On the macroeconomic level it is important that interest rates and all other prices are market driven. Macroeconomic stability may be the most important condition for efficient and functioning housing finance systems to emerge and work. Sound institutions also bring forward a stable banking sector that is able to provide long-term investments.(UN/ECE, 2005: 19)

During the eight decades following of the republic, Turkey made great economic progress despite occasional setbacks. According to a tradition dating back to Ottoman rule, shelters built overnight were tolerated by the authorities. These chanties *or gecekondu* had been a problem since the 1950s. During the late 1970s and early 1980s domestic demand in construction sector was relatively weak. Policy makers made housing – perhaps the most deficient portion of the economy- a priority. On the other hand, a Housing Fund, set up in 1984 and financed by a tax on tobacco, liquer, and luxury imports.(Pitman, 1988: 219)

On the other hand, houses prevented people's savings from being eroded by inflation and they don't lose their value in the long run, unless there is a major catastrophe. Deficits were eased by establishing off-budget funds for certain public purposes, such as the Housing Fund, financed with a surcharge on customs duties applied to luxury imports.

Home loans given by commercial banks in 1990s are never suitable for low-income homebuyers, even middle-income groups in respect to affordability, and on the contrary, these loans are targeted to upper-class income groups. These loans have never been suitable for middle-income group except for 2001. (Akçay, 2003: 50 ) This situation, all changed when the rates gradually came down during 2005. Due to favourable economic conditions and recent boom in consumer loans borrowers were able to make long-term investments, such as buying a house through mortgages, and build up downpayments for housing; both local and foreign investors were willing to provide funds to Turkish homebuyers with better terms.

It is estimated that Turkey needs approximately 400,000 new residences each year, of which only around 200,000 are being built. So that

the appetite is there to use the financial sector's leverage to own a house, consumers are faced with another well-known reality of Turkey: quality-housing shortages, especially in the face of a significant earthquake threat.

However, along with the population growth, downsizing of family units and the increase in urbanisation the annual housing need is estimated at 600.000 in 2010 and 800.000 in 2015. In order to establish modern housing finance system in Turkey, The Capital Markets Board prepared "Law Amending the Laws Related to Housing Finance System" which was put into force following the publication in the Official Gazette dated 6 March 2007. The new law improves, and in part liberalizes, the regulatory infrastructure for the origination of loans.

The mortgage law sets the maximum loan-to-value ratio at 75 percent, which is lower than in most of the more advanced countries. Maturities and repayment structures of mortgage products will much depend on macroeconomic developments.

From the commercial banks' point of view, the new legislation will allow for new funding mechanisms, such as asset-backed securitisations and covered bond issues, which are currently uncommon in Turkey. For the consumers, the mortgage law introduces early payment fees of up to 2 per cent of the outstanding balance, which currently do not exist. The mortgage law allows for floating rates, indexed to a common index and with certain caps, along with hybrid products both fixed and floating rates. Therefore, the new mortgage law must be supplemented with sound subregulations and the supervisory responsibilities must be defined clearly. Moreover, the supervisory responsibilities between the Capital Markets Board (CMB) and the the Banks Regulation and Supervision Agency (BRSA) must be made clear.

Therefore, it is important to make necessary regulations concerning the below mentioned issues in order to have an efficient housing finance system in Turkey;

- Housing loans should not be included in consumer loan definition in order to comply with international practices. Responsibilities of creditors for defective goods and services which are stated in the provisions of Consumer Protection Law No. 4077 should be explicitly defined,

- As housing insurance, life insurance and Turkish Catastrophe Insurance (DASK) are must be compulsory,



- In the implementation of a contract with variable interest rates, it must be possible to use foreign exchange and short-term interest indexes instead of price index,

- Building under license and new projects for urban transformation must be supported and improved.

In this context, the global financial crisis which made itself felt from the beginning of 2008 and started to impact the entire world from the last quarter of 2008 led countries to seek new financial architectures, and brought new highlight on updating regulatory and supervisory approaches as well as engaging in new international cooperation.(DPT, 2009: 12)

#### 4.2 Monetary Policy Transmission on Securitisation in Turkey

In the monetary economics literature different monetary channels exist: The interest rate channel, the exchange rate channel, equity price channels and lending -credit channel. Higher household mortgage indebtedness, in particular at adjustable rates, can significantly impact monetary policy transmission.

BIS (1995) concludes that monetary policy could be expected to have comparatively stronger effects in Anglo-Saxon countries than in continental Europe -with the possible exception of Italy where variable-rate mortgages predominante.

Relative importance of adjustable versus fixed rates is; countries with predominately adjustable-rate mortgages (ARMs) have typically experienced higher house price growth and volatility than countries with fixed-rate mortgages ( FRMs ).

Countries differ in the adjustability of their mortgage interest rates in large part because of differences in their policies toward mortgage markets. One reason the US has the highest percentage of fixed-rate mortgages that, in the aftermath of the Great Depression, the Government aggressively promoted fixed-rate mortgages .(Mishkin, 2007: 19)

Since lenders typically promote the type of mortgage that best serves their balance sheet needs, ARMs are prevalent in countries where funding for mortgages is based on short-term deposits -e.g., Australia, Spain, United Kingdom-.This is an important finding for Turkey; the introduction of ARMs is a key feature of the new mortgage law and banks are likely to advertise ARMs to match their short-term YTL deposits.

The future stock of household mortgage debt may thus mainly be in ARMs. While this reduces the lender's interest exposure, it may imply stronger fluctuations in household consumption and house prices.

Mortgage instrument design is an important ingredient in the use of capital market funding as well. ARM transfer most if not all and risk to borrowers and may be unsuitable for volatile emerging markets. The introduction of FRM is important for macroeconomic stability. Even in a universal bank or portfolio lenders models, FRM, need to be funded in the capital markets. Efforts to create mortgage capital markets should include a product development component focusing on FRM. (Chiquier et al, 2004: 39)

Therefore, liquidity has a significant effect on loan supply in Turkey. Capitalization does not have a significant effect on bank loan supply and the impact of bank size is nor robust; these provide partial evidence that the bank lending channel of monetary transmission operates in Turkey.

In addition, a better understanding of Turkey's monetary transmission mechanism is important for conducting monetary policy effectively. Bank lending channel may have become more important for monetary transmission, as the banking sector has started to perform its intermediation role more effectively. (Brooks, 2007: 3)

In particular, the effect of monetary policy in Turkey can be propagated by the banking sector, depending on its liquidity position. The government debt instruments held by banks are another factor that determine the loan supply growth rate. On the one hand, allocating the bank assets so as to hold more government securities may decrease the availability of private loans. On the other hand, public debt sales to the banking system may increase the loan supply if there sales are a consequence of a reserve accomodation policy. (Çavuşoğlu, 2002: 22)

However, strong economic performance combined with positive confidence effects of EU accession -including prospects of Euro adoption- and the entry of foreign banks, have given rise to dramatic changes in the mortgage market: Wider range of loan purposes, higher loan to value ratios, foreign currency mortgages, and new loan distribution channels. While in principle beneficial to consumers, some of these developments have started to raise concerns among regulators. Turkey can learn from these experiences and avoid some undesirable developments such as, the fast spread of mortgages in foreign currency.

## 5. CONCLUSION

The international experience shows that mortgage finance not only plays an important role in the functioning of housing markets, but can also affect a country's financial and overall macroeconomic performance.

This paper shows how Turkish economy best can develop secondary mortgage market and securitisation by taking especially the US and EU experience into account. Mortgage securities are the vehicle to tap capital markets for funds for housing and can improve the accessibility and affordability of housing and allow lenders to better manage the complex risk of housing finance. More broadly, the use of this approach may help an economy establish rudimentary capital market.

What US experience has shown before 2008 sub-prime crisis, both before and after the advent of secondary markets, is that with the right legal and regulatory framework and a reasonably stable macroeconomy; mortgages not only permit extending larger, longer-term lending but also expand lenders' funding options and allow a re-allocation of risks through the securitisation of mortgage loans.

Since the pent-up demand for quality housing for reducing earthquake exposure is enormous, establishing a healthy mortgage market will improve the standard of living and make Turkey a more attractive EU candidate.

There are many country examples where the liberalization, or introduction of mortgage legislation, combined with favorable macroeconomic and certain other conditions have led to rapid mortgage market growth. All the factors that seem relevant for such growth could also come into play in Turkey. The international experience suggests that Turkey's mortgage market could expand rapidly if macroeconomic stability and low inflation become entrenched.

Although avoiding the money policy mistakes of 1929s Great Depression helped define how governments responded to the 2008 subprime crisis; we think that money policy applications to the recovery phase are less well understood. In this regard, the EU have been sorted according to the financial markets analysis carried out before and after the subprime crisis.

It would appear that we are witnessing a difference of approach and emphasis between the EU and the US that could be material for the securitization market in future years. It is finally clear that the US and the EU must take charge of financial capitalism as it stands today and have to

find and implement an adequate regulation system in order to mitigate new financial crises such as 2008 sub-prime crisis.

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