

# THE IMPACT OF THE REAL ESTATE MARKET REFORMS ON FINANCIAL SECTOR STABILITY AND MONETARY POLICY CONDUCT

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## ABSTRACT

*The Tunisian real estate markets have grown considerably in recent years and have taken on increased investment importance. This paper aims to put the attention on the different actors and stakeholders in the Tunisian real estate sector. Understanding their strengths and shortcomings allows us to appreciate their dynamism, as well to show their importance in the business cycle. It seems to us that the intensive government intervention contributes to the handicaps of this market and, subsequently to plunge the various other sectors attached to it.*

**Key words:** Real Estate Value, Public Operators, Private Operators, Monetary Policy Conduct, Firms' Opportunity, Real Estate Market Reforms, Banking Stability

## INTRODUCTION

Since the early beginning of the economic world history, the real estate crises have had a heavy weight on the global economy. From the Great Depression crisis on 1873, the sector was preceded by a double movement in real estate speculation and that of the stock arising from the banking liberalization of the 1870s in several European countries. In the European zone, Austro-Hungarian empires, and in Prussia, monarchs supported the creation of "a series of new institutions that are set to issue mortgage loans in the areas of municipal and residential construction." The real estate sector was booming in Paris, Vienna and Berlin. The financiers did not hesitate to go into debt to invest in the construction based on house price boom. This, in fact, guarantees them the return of investment gaining profits.

The collapse of the Japanese stock market - the Nikkei, tripled between 1985 and 1989, lost 60% in two years - and land prices have hit the banking system. Meanwhile, the crash of the real estate and land prices are forced to massively provisioned bad debts accumulated on households and businesses. To rebalance their balance sheets, the banks had no choice only to sell at a loss their assets (stocks, land, buildings), which further resulted in the decrease of prices. Mostly, they drastically reduced the outstanding and accorded loans, which intensified the

difficulties of businesses and increased the payment defaults. This situation characterized also the world in the subprime crisis in 2007-2008.

In the same way, the Spanish real estate crisis started from the land law Ley del suelo declared by the Spanish government in 1998 which allowed the privatization and facilitated the sale of land ready to be built. Therefore, the pace of construction exceeded those of France, Germany, and Italy. The plan was to augment the supply in the real estate sector by increasing the number of investments and facilitating the access to property for the young Spanish. Between 1998 and 2005, to deal with these real estate crises, the central banks presented themselves as the only actors implementing various policies to maintain the economic stability.

The burdens on businesses and households have an expansive effect on the evolution of the economy: Lower mortgage rates support the demand for real estate, and have a positive impact on the property market stimulating the demand for goods. The crises' multiplication shows that this market plays a significant role in monetary and financial stability: the real estate values is the crucial guarantee used by the banking sector when supplying credit, Icaviello (2005), Icaviello & Neiri (2010).

The sharply fall in real estate prices in 2006 caused a sharp decline in prices of securitized mortgages, which in turn caused such a threatening loss for banks that was described as "toxic". The financial crisis has also caused a severe global economic recession. To cope with this global crisis, the central banks of developing countries, since the 2008-2009 crisis, have led a highly expansionary monetary policies and the "quantitative easing" policy. These monetary policies have made, in all these countries, the interest rate on short and long terms significantly lower than their nominal growth. This clearly shows their very Expansionist Character.

This paper aims to analyze the impact of real estate reform on the financial sector stability and monetary policy conduct. Indeed, the Tunisian real estate sector is a key to the different perspectives, namely, employment, infrastructure, improvement of social situations...and the economic growth in general, if the refurbishment and reform of their funding will be more effective. It affects not only productivity and employability but also the financial sector and profitability. Even if this sector seems fertile for the economy in a general way, it is surrounded by a set of actors among them state organizations. This paralyzes their approach to push the macroeconomic aggregates of the Tunisian economy forward, such as the index of unemployment, GDP... Hence, such a sector is able to get out the state of slowing the economic cycle in the event that the real estate developers are directly related to the financial sector that minimizes the asymmetry of information and reduces the non-performing loan receivables for the banking sector side.

## LITERATURE REVIEW

### Real estate market identification and property value assessment

The classical definition refers to the real estate market as a mechanism by which buyers and sellers of real estate confronted to determine the prices at which these goods would be exchanged, Adlington (2000). Breuer & Steininger (2020) suggest that in most countries, the real

estate sector plays an important role—as measured by volume, the share of the economy, and workforce; but its ability to produce profit for banks or firms is lower than it is for the stock or bond market.

Geltner et al., (2007) suggest that the real estate market can be classified into three distinct sectors; space (rental markets), asset, and development markets. The demand side of these markets represented by households, firms, government entities that want to use space for production or consumption. On the supply side, property owners lease space to tenants. Rent, which is the price of the use of space, reflects the state of equilibrium between the demand for space and the supply available at the level of that market.

Concerning the asset market in which a new real estate created, their prices depend, in the first place, on construction costs. Moving on to the development market, real estate asset holders want to achieve again through the property' use. This type of market concentrates in that space where real estate prices depend partly on that of rent (real income) and on the yield of the financial market. Meanwhile, Geltner et al., (2007) present another vision of segmentation of the real estate market. It may be subdivided into two parts; the public and private markets.

Identifying the real estate value is relatively a difficult task because of the intrusion of different aspects and actors at the same time. Millington (2014), identify the real estate asset as the valuation of a particular property at a particular time, considering all its characteristics, as well as all the underlying economic factors of the market to which it belongs including the range of alternative investment. This definition combines the scientific and artistic aspects, which reflects the complexity of the property valuation and how it can be measured. Economic science, indeed, requires that this value should be measured in objective terms, while reality imposes a subjective phenomenon.

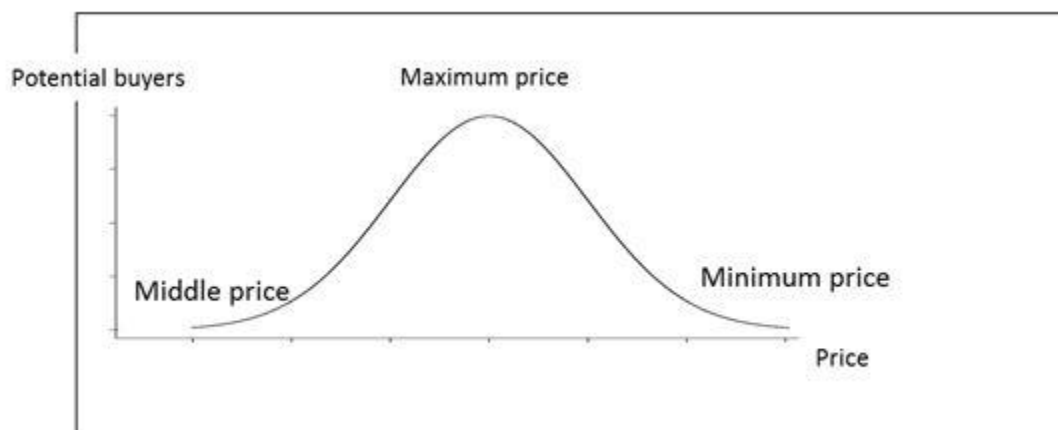
Manya & Mooya (2016) show that the real estate valuation method, in Europe, influenced by three factors: the selling prices indicator, the profit calculation method, and the investment method.

The first essential valuation factor represents the most useful element of the property value measuring. It is based on the subjective comparison of comparable real assets on the market. This method differs from the other procedures by taking into consideration the current transactions observed in the market. In contradiction with the comparing selling price method which is widely used for the evaluation of residential dwellings, the profit (yield) calculation method is applied for the evaluation of commercial residences. The insiders of this approach use the relationship between net income in the first year and the record of return rate (the capitalization rate), to determine the market value of a commercial property. Hence, two variables are taken into account for this purpose, such as the cash flow and the discount rate. Similarly, the investment approach is included in the valuation of commercial real assets. Here, the residential value replaces its production capacity, which comes from rental, taking into account the housing specificities and its location. We note that this approach is relatively more traditional than the second one.

D'Acci (2018) investigate the relationship between real estate value and characteristics of the area. He shows that the Area's indicators present as the essential factor for property prices. These latter are considered by individuals before buying a house and are reflected in the property prices.

Among the most frequent problems in terms of real estate, valuation is the exactness. It is conventional that an estimate of such property value is accurate between 5% and 10% of each correct valueside. Therefore, such an erroneous estimate falls outside that interval. In contrast, several experimental studies show that the evaluations that fall within this margin are the exception rather than the norm. Namely, the Crosby 2000 study suggests that the allowable margin should be extended to 35% and not to 10%. Therefore, all points within this margin are recorded as useless for the decision made by the evaluator.

Apart from the problem of accuracy in terms of real estate valuation, there is a disagreement about the market value definition of such property whether to consider it as the highest selling price or that the most probable one. Mooye (2009) considers every property placed on the market as unique. This unique property will attract a normal distribution of potential buyers. The exhibition price represents the personal situation of the offers, and their minimum evaluation would be acceptable. Sellers refer to similar house prices in their evaluations. The higher price, thus, will be at the upper end of the distribution, while the most frequent price (average price) will be placed in the middle of the distribution.



**FIGURE 1**  
**THE NORMAL DISTRIBUTION OF THE REAL ESTATE VALUE**  
**SOURCE: PREPARED BY AUTHORS**

The Figure 1 shows the nominal distribution of the real estate value. This figure determine the at which point the property will be exchanged. Practically, the property sellers will seek the highest possible price (the upper bound of the distribution). This point of view is founded on the seller rationality hypothesis. By contrast, the standard theory indicates that the right extremity of the

distribution represents atypical (special) buyers who are less representative agents. Unlike this latter, the majority of buyers (more representative) determine the selling price (the market price) as suggested by the neoclassical theory. Hence, the real estate market price must be at the center of the distribution. In this respect, the market value of such property is the most probable price. However, D'Arcy & Keogh (1999) provide that the real asset market encompass all the institutional arrangements by which goods are used, exchanged, and developed, taking into account the different actors involved in this process.

### **Real Estate Asset and Economic cycle**

Some economists (Kiyotaki & Moore, 1997; Aoki, et al., 2004; Mendicino & Pescatori 2005; Iacoviello, 2005; Iliopoulos & Soprasedu 2012; Brazdik et al., 2012, Breuer & Steininger 2020) consider real assets as a source of external funding in which is taken as collateral.

Kiyotaki & Moore (1994) assume that the borrowers are considered unable to guarantee the profitability of their projects. This leads to the existence of a debt threshold (credit limit) which depends on the value of collateral (Property). Kiyotaki and Moore extended their studying in 1997 when they constructed a theoretical model differentiating between two types of households: patient (gatherer/lender) and impatient (farmer/borrower) households. Indeed, the credit amount is capped by the collateral value (land value). In case of borrower default, the lender sells the collateral to cope with such commitment. Iacoviello (2005) extends the Kiyotaki and Moore model in which he deems the real estate as collaterals for loans instead of land, bearing in mind that the property value may depreciate over time. In addition to that, Aoki, Proudman & Vlieghe (2004) introduce the housing investment in the BGG model of 1999 in which the owners, who invest and provide residual services, replace the producers of capital. The owners pay the external finance premium on loans to purchase real estate. The real estate prices and residual investment are pro-cyclical. Therefore, the demand of houses depends on housing service and marginal cost of funding. Moreover, Mendicino & Pescatori (2005) support the idea that the real assets are seen as a guarantee when granting the credit, so the housing prices are linked to the consumption and to the economic activity. Otherwise, the real estate assets are considered as a source of wealth for households.

These are the different theoretical points of view, which prove that the inclusion of housing prices is a main factor in the financial cycle. According to Iliopoulos & Soprasedu (2012), to maintain balance, companies must detain more land. This will decrease the cost of opportunity and amplify the decline in land prices, hence the drop in investment in land. For Brazdik et al., (2012), the guarantee of a credit is defined as the durable assets such as land, property, and capital of the long term. They consider the collateral constraint as an alternative approach to the mechanism of premium external funding. Otherwise, it is the stress on the available funds.

For Liu, Wang & Zha (2010), the entrepreneur finances his consumption, his production, and his investment. Therefore, to borrow, he must give a collateral (land, capital) used as a means of production. The authors evoke, in case of a positive shock on the housing demand, the price of land tends to rise, and that causes a positive wealth effect in favor of the entrepreneur. Then, it

increases the ability to borrow that generates a growth in investment through a dynamic interaction between the price of land and investment financing. Therefore, the demand for housing is a financial amplifier. According to Brazdik et al., (2012), in a model that includes external finance premium, the increase of collateral value in the production function can amplify the effect of the financial accelerator. While, the use of nominal contracts (2) allows mitigating the impact of the financial accelerator.

### **Real Estate and Monetary Policy: feedback interaction and transmission channel**

Literature is in general very ambiguous and imprecise when it comes to the horizon in which monetary policy induces variations in housing prices or this last pushes policy makers to vary the key interest rate. The conduct of monetary policy depends to a large extent on the housing cycle dynamics. This is because the values of the residential property are crucial factors of banks' willingness to supply credit, Laevan & Tong (2012), Bluwstein et al., 2020; Berlemann & Freese 2020.

Clarida, et al., (1999) suggest that the changes in prices on the housing market partly explain the stance of monetary policy. In addition, Pérez-Quirós & McConnell (2000) evoke that the increasing volatility of GDP in 1984 caused the decline in residential investment. In the same context, Cecchetti, et al., (2000) support the idea that the distribution in asset prices leads to the instability in inflation as well as to unemployment. Henderson (2005) and the former Fed President 'Alan Greenspan' view that the rise in house prices is only a 'foam', but the subsequent risk taking by banks and financial institutions leads to the housing bubble formation. This generates an economic recession. Under the direction of Mr. Bernanke, the Fed decides to provide liquidity as a lender of last resort to stabilize the financial condition. This shows us the important relationship between monetary policy and asset prices. Goodhart & Hofmann (2007) emphasize the influence of real estate prices on the economy and especially on inflation. Contrary to the predictions of Céspedes et al., (2006), the real estate prices, interest rates... are endogenous variables of the economy. They use the BVAR method to detect whether the rise in the housing prices and falling long-term interest rates induce an easing MP in the US or not. Despite of the endogenous characteristic of real estate prices and interest rates on the economy, Borio & Disyat (2009) declare that the fall of the real estate market during the subprime crisis pushes the arm of policy rates to leave the place to unconventional practices (quantitative easing) which aim to rise the monetary base.

- The uncertainty of the impact of real estate prices on the economy
- The uncertainty of the origin and impact of the different shocks on the economy.

They believe that the real estate price change indicates that there was an easing MP in 2004 and in 2007 constrictions.

Laevan & Tong (2012) consider that a wide variety of companies in different countries are the most dependent on external financing (have a high level of sensitivity to the purchase

price of the shares). They conclude that a monetary shock stimulates a variation in asset prices by

Wongswan (2008) uses the daily data from 15 foreign stock indexes in Asia, Europe and in Latin America against the US monetary policy. The author finds that the increase in stock indexes from 0.5% to 2.5% leads to a drop of 25 points from the bases in interest rates announced by the Fed. It strengthens the inverse relationship between asset prices and monetary policy. Erler et al., (2013) analyze the reaction of monetary policy that follows the housing boom. Taking into account the data of the real estate market compared to Taylor rule between 1980 and 2007 in the US, the authors conclude that in the absence of the real estate boom, the Fed decides to lower the interest rates, unlike the counter-cyclical strategy (lean against the wind).

Many researchers agree on a reciprocal-correlation between indoor monetary policy and prices of strange assets. It is clear for several economists (Greenwald & Stiglitz 2003; Heyer & Timbeau, 2006) that most of monetary authorities shared the same objective: "economic stability". Therefore, to achieve this aim, several policies are addressed. There are those who relatively reached the goal, and those who deviate. In short, sometimes the failure of some policies can be justified by the transmission channel and not by themselves. In the same context, many economists see the housing market as a bridge that transmits monetary policy.

Greenwald & Stiglitz (2003) place the banking sector in the center of financial intermediation households in which there is a strong correlation between the total debt rate and that of the mortgage. Heyer & Timbeau (2006) focus on the analysis of the economic situation. They suggest that because of the attacks of 11 September and the bursting of the Internet bubble in 2001, the global economy saw a deceleration. Therefore, the Central Banks of US and UK lower their interest rate to stimulate their economy, but this time, not through the investment channel but rather through the real estate markets. Explicitly, when the interest rate is low, it encourages entrepreneurs to borrow more, and therefore real estate investment will be more dynamic leading to the rise in house prices, in the first way. In the second way, when the interest rate is relatively weak, it discourages both savings and consumption. Hence, there is an economic revival. The authors concludes that the movements in the housing market do not have a destabilizing effect on the economy.

However, Learner (2007) deduces that the problems of the real estate market lead to a weakness in the US economy by 26%. He also suggests that the expansionary monetary policy adopted by the Fed encourages the transactions on the housing market and subsequently results in a sudden fall in the yield curve.

We note that most authors emphasize the importance of the real estate market in terms of transmission of monetary policy but, the views concerning this instrument neutrality are brand fire.

## **An empirical analysis of Tunisian Real Estate Market**

**Tunisian Real Estate Sector's History:** The housing sector occupies an important place in the Tunisian economic fabric. The policies and programs followed allow the sectors to create value and employment. Over the period 2009- 2012, the contribution of this sector was estimated

by 6.6% of total GDP. The share of investment in the housing sector in relation to total GFCF (gross fixed capital formation) increased from 13% in 2008 to 17.8% in 2012 was 2.7 billion TD. Therefore, the Tunisian real estate sector has experienced a recovery in the last 40 years; the overall production has grown considerably from 15 thousand dwellings per year, for only 58,000 new households until 2014. That means 1.53 dwellings per additional household. As well, it contributes to create the benefit and employment. Indeed, it trains 13.6% of the total employment over the period 2009 - 2012. Furthermore, its share in the gross formation of a fixed capital increased from 13% in 2008 to 17.82% in 2012. That is more than 2.7 billion TND.

All these positive results conceal the structural imbalances: supply does not correspond to the needs of the disadvantaged social strata. Similarly, the steady rise in house prices is increasingly contributing to the exclusion of the most precarious households, having regard to the fact that the broader social class in Tunisia is a middle-income one. In addition to that, the difficult economic context is characterized by a high inflation especially after the revolution in 2011.

## OVERALL FRAMEWORK OF THE TUNISIAN REAL ESTATE SECTOR

The strategic aspect, in terms of driving the real estate sector, is characterized by an intensive intervention by the Tunisian state. Here, it sets a long-term goal (in 2030) aiming at satisfying all the households' need to lodge whatever their income. This will have a positive effect on employment and economic growth in general. The Tunisian real estate market is predominantly governed by the State. Land and real estate operators are commissioned to produce an affordable housing supply in a context of high urbanization.

### Public Actors

Since independence and until today, the Tunisian government has tended to manage the housing sector by its own institutions which allow it to dominate an important margin compared to the share of private companies having the same activity.

- ✚ The National Real Estate Company of Tunisia (NRECT/SNIT) and the Social Housing Promotion company (SHPC/SPROLS): between Competition and Complementarity.

Both public companies operate in a competitive environment.

Founded in 1957, the NRECT is presented as the first public institution. Initially, it was responsible for training and financing housing for different social strata. In 1974, in the context of decentralization, the state limited its mission in favor of real estate developers. In addition, in 1979, three regional subsidiaries were created; NRECT north, NRECT center, and NRECT south. This resulted in a high productivity reaching 263 747 housing units between 1957 and 2016 (10% of Tunisia's total real estate production), noting that in the 1970s, RECT experienced the peak of its activity by 20,000 housing units per year (*i.e.*, 2/3 of total social housing).



Furthermore, the SHPC manages the assets of the social security funds and several other social institutions, such as the National Social Security Fund CNSS and housing rent to the insured's. As well, SHPC is involved in the construction of housing for the benefit of social security through the realization and management of the private sector, social security, fund programs and rental housing. From its founding (1989) to the present day, SHPC built nearly 300 housing units shown in Table 1.

<b>Table 1</b> <b>NUMBER OF THE HOUSES BUILT BY RECT SINCE ITS CREATION</b> <b>SOURCE: MINISTRY OF EQUIPMENT, HOUSING AND TERRITORIAL DEVELOPMENT</b>		
<b>Plan</b>	<b>Period</b>	<b>Number of dwellings completed</b>
-	1957 to 1968	1990
-	1969 to 1973	33 663
-	1974 to 1976	41 689
Fifth plan	1977 to 1981	71 000
Sixth plan	1982 to 1986	60 620
Seventh plan	1987 to 1991	19 089
Eighth plan	1992 to 1996	6 625
Ninth plan	1997 to 2001	12 533
Tenth plan	2002 to 2006	8 415
Eleventh plan	2007 to 2010	6 463
Twelfth plan	2012 to 2016	1 660

#### The Land Housing Agency (LHA/ AFH)

The LHA was created in 1973. Its mission is to produce developed subdivisions and contribute to the creation of a healthy and harmonious urban environment. The highest demand for land is presented by Greater Tunis region with 183,000 requests (54% of total demand) and Central East with 46,000 (14%). In response to this strong demand, the LHA offers only about 77 thousand lands (76,794) or a quarter of total demand. Specifically, the LHA's cost per square meter turns around 35 to 45 percent of the prize presented by private developers with a quality that is often better than that of private companies shown in Table 2.

#### The Urban Rehabilitation and Renovation Agency (URRA)

URRA was founded in 1981. It is responsible for the execution of state policy in the field of rehabilitation and urban renovations on behalf of the State and the public community. More precisely, it is tenuous to undertake development work to improve the conditions of skill in the under-equipped areas, and to allow a better use of some urban lots.

<b>Table 2</b> <b>THE DIFFERENT TUNISIAN PUBLIC INSTITUTIONS OF REAL ESTATE SECTORS</b> <b>SOURCE: PREPARED BY AUTHORS</b>	
<b>Public Operators</b>	<b>Missions</b>
National Real Estate Company of Tunisia (NRECT/SNIT)	Since its creation, it has been in charge of construction, development, land and housing projects until 1973. Since 1973, its mission is limited to real estate promotion.
The Social Housing Promotion company (SHPC)	It manages the assets of the social security funds. Also, it is involved in the construction of housing for the benefit of social security
The Land Housing Agency (LHA/AFH)	Its mission is to produce urban environment. It deals with the management of real estate assets of the State
The Urban Rehabilitation and Renovation Agency (URRA/ARRU)	Its main mission is to intervene to develop under-equipped neighborhoods, and improve the infrastructure.

## The Private Actors

Given the enormous weight of public institutions, the activity of private real estate companies remains modest with 10 thousand dwellings per year (22% of the formal housing construction, compared to 75% for self-construction) as shown in Figure 2.

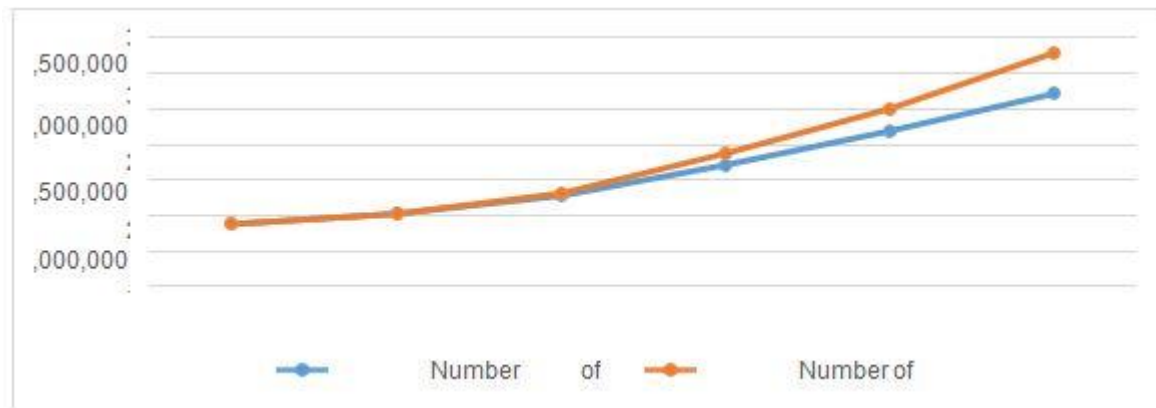
It is impressive that the private real estate sector is dominated by occasional promoters characterized by low productivity (the average production turns around 4 units per year for each promoter). As well, the majority of this type of promoters is concentrated in the big cities such as Tunis, Sousse, "Sfax". Despite the existence of several private real estate developers, there are only three listed companies known as ESSOUKNA<sup>1</sup>, SIMPAR<sup>2</sup>, and SITS<sup>3</sup>.

We notice that the private promoters, who possess a relatively medium size such as the previously three-evoked operators, direct their production in favor of the State and touristic projects like the "Berges du Lac" project. Thus, the Tunisian households seeking housing are moving towards smaller real estate developers and sometimes make use of mortgages to build their own home.

<sup>1</sup>ESSOUKNA Company: Created in 1983 with a capital of 5 MD, it exercises all the activities related to the real estate sector, such as subdivision, the development of land intended mainly for housing, construction, renovation.

<sup>2</sup>SIMPAR company: was created in 1968, it is the parent company of the real estate group of the National Agricultural Bank (NAB/BNB), with a capital of 4 MD. Since the 1970s, it has participated in the construction and modernization of the Tunisian housing stock, as well as in the land development.

<sup>3</sup>SITS Company: (Tunisian Saudi real estate Company) was created in 1985, with a capital of 11 MD, it exercises as an activity; real estate promotion: purchase, sale, rental... intended primarily for housing and commercial activities.



**FIGURE 2**  
**DEMOGRAPHIC CHANGE COMPARED TO THE NUMBER OF DWELLINGS IN TUNISIA**  
**SOURCE: NATIONAL INSTITUTE OF STATISTICS**

Behind these Figures 3 and 4, there is an opposite reality where less than 80% of Tunisian families own their usual homes. According to the census done in 2014, this can be explained by the fast.



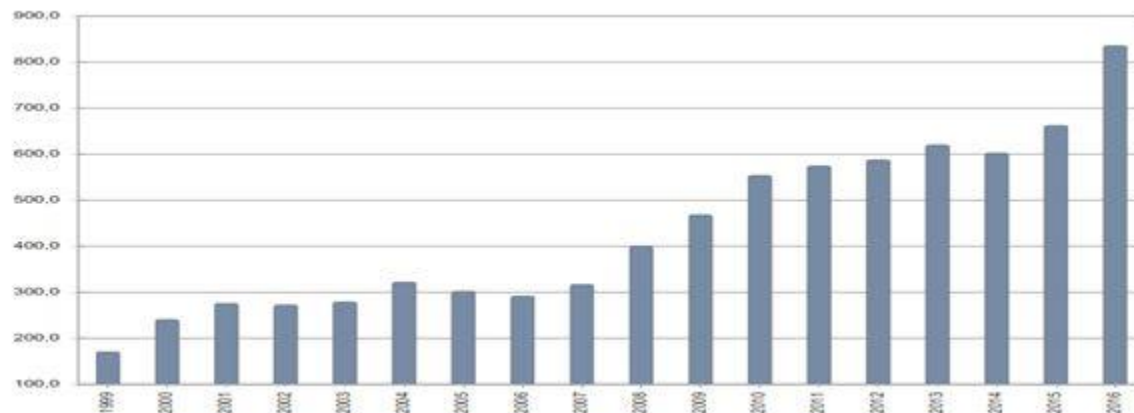
**FIGURE 3**  
**PROPERTY PRICE TREND IN TUNISIA**  
**SOURCE: NATIONAL INSTITUTE OF STATISTICS**

## Real Estate Financing

Until the early 2000s, the Housing Bank (HB), came, as the result of the transformation of the National Housing Savings Fund (NHSF) into a universal bank in 1989, was a unique player in the financing market habitat. The de-compartmentalization and deregulation of the banking sector have allowed other banks to intervene in this market.

Despite the difficult economic and social situation that keeps prevailing in Tunisia, credit institutions continue to finance the various operators. This is apparent from the annual report of the Central Bank of Tunisia (BCT) for the financial year 2015.

However, there is a downward trend in overall outstanding loans, which increased in 2015. Only the housing loans were reactivated during the same year. This is explained by the upward trend in the money market interest rate which is, in turn, caused by the increase in key interest rate. In this context, the Money Market Interest Rate (MMIR) applies in the calculation basis of the loan interest rate  $I(L) = \text{MMIR} + \text{margin}$ . By contrast, housing loans are distinguished by a fixed rate independent of the fluctuation of the MMIR.



**FIGURE 4**

**VALUE OF MEDIUM AND LONG-TERM CREDITS OBTAINED IN THE BUILDING AND PUBLIC WORKS SECTOR (UNIT: 1 M TND)**

**SOURCE: NATIONAL INSTITUTE OF STATISTICS**

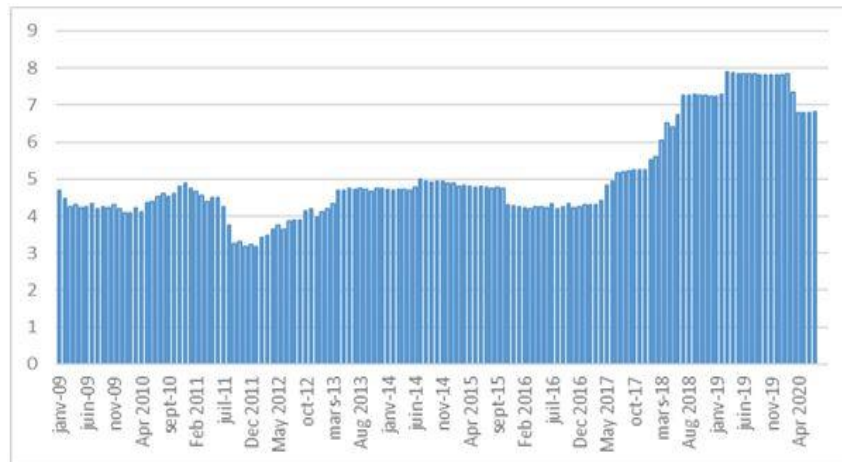
Real estate loans for individuals are not accessible to everyone. Several conditions must be met to have access to this type of credit as shown in Table 3. It is clear that the self-financing rate is set to a minimum 20% of the total amount of the acquisition or construction. If the real estate worth is 100,000, it will require at least 20,000 TND of personal contribution from the borrower. As well, the creditor's debt ratio must not exceed 40% of their disposable income <sup>4</sup> (net salary, dividends, pensions, rents collected, etc.) and should include the expenses (outstanding loans).

<b>Table 3</b> <b>SHARE OF MORTGAGES IN TOTAL CREDIT, SOURCE:</b> <b>NATIONAL INSTITUTE OF STATISTICS</b>					
CREDIT TYPE	2013	2014	2015	2014/2015	2015/2014
Habitat Credit	7.088	7.598	8.232	7.2	8.3
Total Credit	57.427	61.613	65.517	7.3	6.3

Concerning the guarantees requested from the bank in the event of granting of mortgage loans, the Tunisian banks require holding a pledge (real guarantee, hypothec) and signing a selling promise from the creditor. Thus, there will be a creditor's salary domiciliation in order to guarantee the payment of his income in the concerned bank.

Apart from the regulations of the Tunisian banking system, like all the monetary authorities, the TBC intervenes in the money market to regulate bank liquidity and act on the financial cost of the main activity (refinancing cost), as well as the rate of repayment of bank loans.

Practically the MMIR increases from 5.23% since September 2017 to 5.35% on the 2<sup>nd</sup> January 2018 and 5.49% on the 4<sup>th</sup> January, 2018 to be, two days later (5<sup>th</sup> January) at the level of 5.6%, the highest rate since 2011. According to the figures published by the TCB, this reflects the state of liquidity drying, as well, the aim of policy to control inflation. Moreover, this policy has a detrimental effect on banking activity in general and on the supply of real estate loans in a narrow way.



**FIGURE 4**  
**THE VARIATION OF THE POLICY INTEREST**  
**SOURCE: CENTRAL BANK OF TUNISIA**

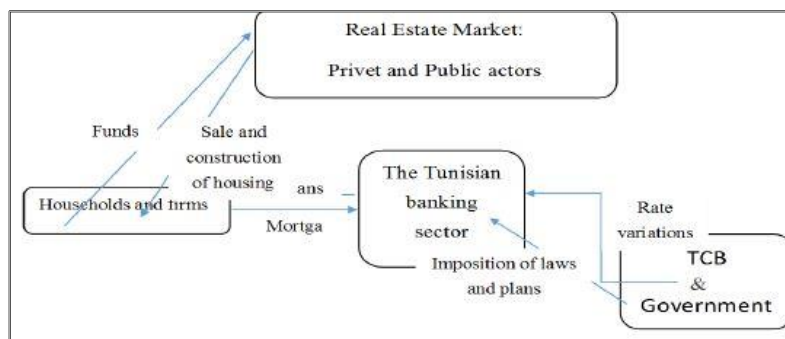
<sup>4</sup> With the exception of widowhood and divorce, pensions are not counted at the level of disposable income.

Recently, on April 2020, the Tunisian government launched the first housing program which allows the Tunisian families to have access to housing, providing that they do not deposit a principal housing and their gross monthly income is between 4.5 and 10 times the Guaranteed Minimum Wage (GMW). One should bear in mind that the GMW is in the order of 305 to 357 DT according to the regime<sup>5</sup>. Also, the beneficiary must be married, widowed or divorced with children in charge and without a dwelling.

The role of the state, then, is manifested by the mobilization of 20% of the total price of housing required by the banks as a self-financing mortgage. In addition, the repayment is done over 7 years after a grace period of 5 years with an interest rate of 2%. (*i.e.*, a total period of 12 years). The remaining 80% will be mobilized by bank loans depending on the specific conditions of each bank as shown in Figure 5.

According to the National Chamber of Real Estate Promoters, until August 31, 2017, only 300 beneficiaries profited from this program, while 1,000 homes are ready until early 2018, and others are under construction in a program that provides 7,000 homes in total.

Although this program finds a partial solution for the middle-income Tunisian families and creates employability in the real estate sector, it makes developers very dependent on the banking sector. The regulations of this plan, then, allow the beneficiary to take advantage of it even if he buys a house independently of real estate developers. Yet, since the majority of the promoters are concentrated in big



**FIGURE 5**  
**SUMMARY PRESENTATION OF DYNAMISM AND THE PROGRESS OF REAL ESTATE SECTOR IN RELATION WITH OTHER COMPARTMENTS**

<sup>5</sup>The GMW, in August 2016, is set at 305,586 TD per month, for the 40-hour plan per week, and 357,136 TD for 48-hour plan per week.

The study of the Tunisian real estate sector and the various compartments that are in direct or indirect reintegration with it allows us to determine if the latter is independent of the economic cycle and especially to the offers of real estate loans or not. Hence, the more the banking sector is modernized, the more the real estate sector will be dynamic. This can be ensured only in the case of a better reform secured by the Tunisian government as well as by the monetary authorities.

Therefore, the Tunisian real estate sector is a key to the different perspectives, namely, employment, infrastructure, improvement of social situations...and the economic growth in general, provided that the refurbishment and reform of their funding will be more effective.

## CONCLUSION

According to this investigation, we note that the Tunisian real estate sector is located at the heart of the economic cycle. It affects not only productivity and employability but also the financial sector and profitability. Even if this sector seems fertile for the economy in a general way, it is surrounded by a set of actors among them state organizations. This paralyzes their approach to push the macroeconomic aggregates of the Tunisian economy forward, such as the index of unemployment, GDP. Hence, such a sector, as the case, is able to get out the state of slowing the economic cycle in the event that the real estate developers, whether public or private, are directly related to the financial sector (the banking sector) that minimizes the asymmetry of information and reduces the amount of doubtful receivables for the banking sector side. It is also able to make the construction of postemoraire work (follows an order from the client of such a bank) rather than a premature one like in the case of the plans of 2017. Likewise, the monetary authority must alleviate the agreed conditions of the mortgages to allow the different social class to lodge.

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