

THE ROLE OF THE BANKING SYSTEM IN STIMULATING MORTGAGE FINANCING

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ABSTRACT

The paper investigates the role of the banking system in stimulating mortgage financing. The paper initiates via giving a quick glance for the main characteristics of the Egyptian real estate sector and notable changes in the sector during last six decades. Then, it covers a survey for the literature review. Afterwards, it incorporates the relationship between real estate prices and monetary policy transmission and the impact of changes of real estate prices on: the aggregate demand, the construction sector, wealth, and economic activity as a whole. The paper also displays the relationship between real estate prices and monetary policy and with financial stability. Concluding remarks reveal the importance of the financial institutions and the banking system as a main catalyst for real estate markets, economic growth, and economic development. The paper also provides some strategies aimed at encouraging the expansion of establishing economy real estates via raising funds for these ventures to overcome the downturn in the sector and to flourish real estate markets as a component of achieving economic stability.

Keywords: banking system, real estate prices, financial institutions, monetary policy, economic stability.

JEL Classification: E44; G21; R20.

I. INTRODUCTION

Recently, Egyptian construction sector is considered among the chief keystones of the Egyptian economy. The importance of the sector is energetic in which it contributes 5% of the total GDP (central agency for population mobilization and statistics: CAPMAS, 2014). Additionally, the

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sector is a labor-intensive industry wherein it absorbs millions of workforces. Thus, the boom of the sector helps to eliminate and mitigate unemployment problems. There is no doubt that enhancing the performance of the sector will contribute to flourishing associated and feeding industries, and the final outcome is further progress in economic growth and economic development.

Households principally cope with a house as the most prevalent asset of their ownerships, and it is also denoting a chief element of the aggregate portfolio of financial mediators in both developed and developing countries. Hence, the behavior of house prices has an impact not only on business cycle dynamics, through their effect on aggregate expenditure, but also on the performance of the financial system through their influence on profitability and consistency of financial organizations. Routinely, buying a house involves external financing taking into account the cost of mortgage credit and the conditions under which it becomes available. Such factors play a key role in articulating the pattern of house price dynamics.

Housing investment decisions, rather any other household expenditure, chiefly rely on the availability, cost, and flexibility of debt financing. These factors are apt to affect shifts in housing demand in the short run together with returns in other assets, which regulate the opportunity cost of real estate investments. Factors that affect housing demand have a major character in determining the short run dynamics of house prices. Credit institutions that mainly accustomed to hold a large volume of mortgages on their balance sheets, housing or mortgage banks, have the option to focus on their relative advantage in commencing and servicing and to sell any unwanted assets in the secondary market. The clear example of advanced mortgage markets is the US and UK markets in which the role of government-sponsored agencies has been influential. However, it is also witnessed a rapid growth in other countries owing to enhancements in financial technology and recent innovations in the legal framework that governs these transactions.

Main factors that govern the relationship between the banking system as a principal component of financial markets and mortgage financing can be summarized in the following factors: credit growth, property prices taking into account the different handling between housing prices and commercial property prices, regulatory change and credit growth, the relationship between real estate prices and monetary policy transmission with the role of the investment channel and the wealth effect, and the impact of real estate prices on financial stability.

Thus, the aim of this paper is to investigate the role of the Egyptian banking system in motivating property markets via mortgage financing by determining and examining factors that govern such relationship and their mutual role in boosting economic growth and economic

stability.

The remainder of the paper is organized as follows: Section II gives a quick glance for the features of the Egyptian real estate sector with main changes in the sector in the last six decades; section III covers the literature review; section IV incorporates real estate as a particular type of asset; section V deals with real estate prices and monetary policy transmission and the impact of changes of real estate prices on the aggregate demand, the construction sector, on wealth, and economic activity as a whole; section VI displays the relationship between real estate prices and monetary policy; section VII shows the relationship between real estate prices and financial stability, which briefly covers the impact of changes in real estate prices on financial stability via risks for banks and consequences of risk management. Section VIII exhibits limitations of the study whereas section IX denotes conclusions. Finally, section X denotes references.

II. CHARACTERISTICS OF THE EGYPTIAN REAL ESTATE SECTOR

The features of the Egyptian housing system have witnessed a fundamental change during the last six decades owing to gradual movement from planned economy – from the mid of the 1950s to the mid of the 1970s – to privatization afterwards. During this era, the government, principally, had acted as a main provider of real estate via public sector firms in which the share of the sector exceeded 90% of the total built units during such period (CAPMAS, 2014). The majority of these built units were dedicated for low-income people and the main share of the private sector is concentrated in constructing commercial properties and insignificant proportion of luxurious properties. After the mid of the 1970s until the end of 1980s, Suez Canal cities witnessed a rapid reconstruction rates after the end of the 1973 War. Moreover, new cities were established such as 10th of Ramadan, 6th of October, Sadat, and North & South Sinai cities to eliminate burdens on overcrowded cities and contribute to construct new communities. This rapid wave of construction participated in flourishing real estate and related industries with a rapid growth in the whole economy.

Shifting to privatization at the beginning of the 1990s and the consequences of the first Gulf War contributed to expand the rule of the private sector with the appearance of luxurious properties at large scale along with a noticeable decline in the share of economy properties. At the end of the 1990s and after the second Gulf War, the role of the private sector was strengthened with the appearance of new modern communities as an expansion of Cairo such as Al Rehab, Al Shrouk, Sheikh Zayed and New Cairo cities. These new cities and towns helped in a further flourish in the real estate sector and related-property industries in which its impact affect particularly on the financial system and in economy as a whole.

Unfortunately, this unplanned growth was dedicated for luxurious properties and villas in a

narrow viewpoint not as a wide perspective as comprehensive development. The consequences of such growth were:

1. A boom in the financial system.
2. A surplus in luxurious and commercial properties.
3. The outcome of the previous two points is a sharp increase in the price of land in new cities and other related materials.
4. A sharp decline in the number of units dedicated for economy and low-income properties.
5. A boom in property market and related-property industry followed by a recession due to excess supply of luxurious real estate from 2011 until now accompanied by a raise in economy property prices due to the lack of supplied units.
6. An unplanned wave of constructing resorts especially Northern Coast resorts that are managed inefficiently since they are nearly vacant during the year except summer holidays as a sort of misallocation of resources.

From this quick glance for the features of the Egyptian real estate market, it can be realized that there is a need to correct such distortions in the sector to overcome its slowdown. This can be done via giving more concern to the market needs. Since the majority of the Egyptians and households lie in low and middle-income categories, the relevant strategy is to give more attention to cheap and economy real estate that satisfy the requirements of a wide range of customers (mainly employees and newly married people).

III. LITERATURE REVIEW

Noticeable dispute takes place on the relationships between the financial system and economic growth. Overall, economists have the links between stock markets and long run focused on banks. Schumpeter (1912) highlighted the crucial impact of the banking system and stressed circumstances when banks can actively promote innovation. King & Levine (1993a) revealed that the level of financial intermediation is a good indicator of long run rates economic growth, capital accumulation, and productivity marks up. Studies of (Bernanke & Gertler, 1989; Kiyotaki & Moore, 1997; Bernanke, Gertler & Gilchrist, 1998) affirmed that borrowing capacity and credit demand of households and firms are affected by changes in properties prices, which are often used as a collateral for bank lending. Moreover, property prices influence banks capital position and thus lending capacity, both directly through valuations of their holdings of real estate assets and indirectly via changes in non-performing loans. Diamond & Dybvig (1983) debated that banks could improve welfare by allowing depositors to diversify liquidity risk while investing in high return but illiquid ventures. Therefore, the prevailing agreement among economists and central bankers is that monetary policy should not target asset prices directly, but

should respond to their effects on real economic activity and the general price level. However, fluctuations in asset prices have an influence not only on the economic environment but also the stability of the financial system.

IV. REAL ESTATE AS A PARTICULAR TYPE OF ASSET

A home is a long-lasting asset that provides consumption services over time. It is tended to be a durable good than an investment asset. Residential property can offer accommodation to its owner, and it has a basic reserve value that is determined by the discounted value of the expected service stream. Consequently, nominal housing prices are less likely to witness a severe fall as equity prices and commercial real estate prices. Actually, in several situations the downward pressure on the housing market is typically reflected in shrinking transaction volumes rather than in a collapse in nominal prices since owners abstain from selling at a loss.

Property prices in the long run are mainly count on demand factors such as; national income and average discount rates, and on supply factors; such as cost of construction, land availability and the quality of the existing stock. However, property markets have a number of unique characters rather other types of asset. The supply of property is somewhat restricted owing to; allocation of the new stock can take fairly a long time because of the length of the planning and construction phases, rents can be slightly inflexible because of the long period rental contracts, The lack of transparent market prices and most transactions follow bilateral negotiations, the liquidity of the market is constrained owing to the existence of high transaction costs, and borrowers rely heavily on external finance; real estate is widely used as a collateral. These factors trigger property prices to behave differently. Fluctuations in property prices can arise not only as a result of cyclical movements in economic basics – interest rates and the risk premium – but also due to the characteristics of the property market itself.

Moreover, the business cycle triggers property price fluctuations; improvements in economic conditions tend to increase the average income of households and therefore boost the demand for new houses causing extra pressure on house prices. Such improvements give an incentive to businesses to expand the scale of their investments seeking for profitable opportunities. Such an expansion entails a higher demand commercial property driving its prices up. Thus, during a booming phase the risk involved in a given project is considered to be lower than in a downward phase. The changing risk premiums along with time varying interest rates determine the discount rates and have a great impact on real estate prices.

Endogenous factors such as supply lags and the historical dependence of investment decisions can affect property price fluctuations. The supply lags maybe attributed to; the supply response in the property market is much slower relative to other goods as a result of the length of the

approval process and the construction phase. Likewise, the flow of information in the property market is usually inefficient since the turnover rate of properties is normally very low and the price information is rather limited and often inaccurate. Consequently, it is usually very difficult for market participants to forecast future movements of property prices. Occasionally, national and sectoral differences can be attributed to distinctive local factors such as elasticity of supply, funding methods, subsidy/tax policies, legal framework, etc.

V. Real Estate Prices and Monetary Policy Transmission

Changes in property prices might affect aggregate demand and economic activity in several ways:

1. Increasing in property prices lead to more optimistic expectations of the returns on property investment. Thus, constructors set up new buildings and market demand for related sectors will flourish.
2. Increasing in house prices induce households to raise private expenditure and therefore provide a big support for private consumption.
3. Changes in commercial property prices may notably change investment decisions of firms that are financially constrained. Likewise, movements in house prices affect the financial behavior of landlords to buy more properties.

There is a relationship between real estate prices and the behavior of monetary policy. There has been extensive evidence that property price changes have a large impact on private consumption and the real economy. Helbling & Terrones (2003) examined the downside effect of property price shifts and found that house price breakdown is associated with output losses twice as large as equity bubbles. Results showed that rises in property prices tended to have a positive impact on real GDP in many countries. Notably, the extent of this impact differs across countries and sectors.

The relationship between real estate prices and construction sector

Real estate is considered the most chief investment asset in any economy. Tobin's (1969) q approach stated that the profitability of property investment depends on the ratio between property prices and property replacement cost. When property prices notably exceed the cost of construction, it is profitable for property contractors and to construct new buildings. Thus, the boom in the construction sector boosts employment and demand in construction feeding sectors. Since real estate investment commonly acts for a noteworthy proportion of the economy in general for most countries, the impact will be considerable.

The effect of property prices on construction mainly relies on the rank of the real estate sector in the economy, the elasticity of property supply and credit conditions in the country. Because of inflexibility in supply, this effect is often built gradually. Hence, such slow response may occur owing to constraints on the availability of land, the regulatory system of local land planning or the rivalry conditions in the construction sector. This sluggish response or lag is also triggered by the ease of access to finance and the availability of sources of fund. Principally, a boom in construction sector is tending to take place in financially liberalized economies. The access of new financial institutions and strengthened competition will surely help property developers and constructors to receive ease loans in favorable terms for new constructions. So, there is no doubt that cheap loans will stimulate the housing sector.

Along with its impact on the construction sector, instability in property prices can have a chief impact on investment decisions in other sectors through the liquidity effect or on changing the financial position of various economic agents. The boom in property prices will improve financial conditions of property landlords, allowing them to raise external funds to finance new projects. However, the liquidity effect has a double impact. Despite rising property prices will ease credit constraints for property owners, falling property prices can amplify the adverse effect via the interaction between the credit constraint and balance sheet conditions. Herein, an investor will find it fairly difficult to access loans since available loans in the credit market will be declined. Thus, the investor either has to give up the investment or borrow at rising funding costs and limited accessibility in which forces investors to eliminate the scale of their projects.

The impact of real estate prices on wealth

The permanent income hypothesis of the life cycle model contributes to the argument for the wealth effect. Regarding this hypothesis, the level of consumption for a household is determined by its permanent income, which is the present value of all future incomes of the household. Housing and equity are two most chief financial assets for households in most developed countries. Since housing has a great proportion than equity, an increase in house prices involves an increase in household wealth. Consequently, landlords may reduce their savings and increase their outlays.

However, the aggregate wealth effect is uncertain and mainly relies on three factors:

1. Whether the house price gains are seen to be permanent or temporary.
2. The size of the wealth effect depends on the home ownership rate in the economy. An increase in houses prices tends to rise the wealth of landlords but make houses less affordable for persons that are planning to purchase their own homes. Homebuyers need to save more for higher mortgage payments then their consumption falls when house prices increase.

3.The ability of households to consume capital gains from houses relies on the flexibility of the housing financing system. In other words, ease refinancing on its terms and at what cost.

VI. THE RELATIONSHIP BETWEEN REAL ESTATE PRICES AND MONETARY POLICY

The view that policymakers should respond to excessive increases in property values as signs of excess demand in the economy has received much understanding within central bank sets. Monetary policymakers need to identify the sources and nature of property price fluctuations to understand their impacts on price stability and economy as a whole in order to formulate appropriate policy response. In practice, critical issues occur suggesting that actions are not an easy mission.

Firstly, it is difficult to identify directly excessive property price inflation at early stages. It is hard for policymakers to design an early warning signal of asset price imbalances in the property market with a comfortable degree of confidence owing to; lack of reliable data, diversity in evaluation methods and volatility of market movements.

Secondly, it is technically difficult to predict exact effects of monetary policy on property market and on macroeconomy. In several cases the monetary authorities find themselves in a dilemma, as price stability in the goods market and in the asset market may need different manipulations. In recent years, several developed countries have witnessed booms in housing markets along with sluggish and low inflation rates in macroeconomic performance. The concurrence of high inflation rates in property markets and low inflation in goods markets modeled a compound dilemma for policymakers. To achieve consistency and stability in the housing market may risk excessive deflation in the goods market and may be weakened macroeconomy. Instead, to encourage household debt it entails low interest rates, which increases household indebtedness and may push households to eliminate their other expenses to satisfy their debts. The mentioned two problems, about proper time to make a right decision and how to do need to be resolved before the monetary authorities can refine their policy framework to deal with asset market imbalances.

VII. REAL ESTATE PRICES AND FINANCIAL STABILITY

The principal source of real estate funding is the banking system so it is not remarkably to be close relations between real estate prices and bank credit. It is a two-sided relation in which sharp falls in property prices can lead to a massive worsening in asset quality and in the profitability of the banking system, especially for housing or mortgage banks that are deeply involved in property or property-related lending businesses. The other consequence of such sharp

fall is that it undermines the value of bank capital, which affects banks' lending capacity. On the other side, bank-lending attitude has crucial impacts on property prices. Bank credit to property buyers and constructors may change the balance between the demand and the supply side and cause property prices to fluctuate.

Hofmann, (2001) and Davis & Zhu (2004) examined the linkage between property prices and bank credit based on the VAR analysis in a number of countries. They suggested that bank credit and property prices are positively related in the long run. They further point out that the impact of property prices on bank credit is significantly positive, yet the effect in the reverse direction is less clear. This means that increases in property prices often lead to expansion of bank credit and this influence is notably high in some countries.

Risks for banks

Fluctuations in real estate prices have a significant impact on banking performance. Falling property prices, in particular, may lead the banking sector into agony through various channels; rises in bad loan expenses in real estate loans, or deterioration in the financial conditions of borrowers and banks themselves, or indirectly through a tightening in financial transactions and in economic activity.

Initially, real estate lending is one of the most important components of banking loans. It accounts for a notable proportion in the majority of developed countries. Declines in real estate prices imply a lower return in the real estate industry and hence property loans are more likely to default. The outcome is reduction in the profitability of banks and increments in their bad debts as well.

On both residential and commercial property markets, mortgage loans are often collateralized by the underlying property. Nevertheless, the use of a low loan to value ratio does not necessarily cover banks from loan losses. When property prices decline sharply, even ratios that were initially considered to be very careful may turn out to be inadequate. Especially, when a high loan to value ratio is used in combination with the market value, it could be very risky for mortgage lenders because default risk could be extremely high during a descending phase.

The credit risk exposure of property loans similarly relies mostly on loans usage. Residential mortgage loans are usually considered to be very safe when a home is similar to consumption and the repayment of these loans often comes from household income, which is relatively stable. Instead, loans to developers and constructors for commercial purposes are much riskier. The repayment of such loans is backed by the sale prices or rents generated from the property upon its completion. Declines in property prices involve a drop in the financial position of developers

and constructors; thus they are not able to borrow new funds that are needed for the completion of the project. When the property under construction is left unfinished, the value of collateral drops close to zero and the commercial mortgage loan is deemed to default. The live examples of non-performing loans in the commercial property sector as a major contributor to a number of banking crises are; the financial anguish in the early 1990s in many developed countries and the 1997 East Asian crisis, and 2007 financial crisis.

The causes led to a fragility of the banking sector are; when real estate prices fall a borrower is more likely to face financial constraints in the form of reduced borrowing capacity. These constraints restrict the scale of new investment and reduce the profitability of corporate firms. Consequently, the credit risk exposure of other types of bank loans rises as well.

In addition to the credit risk effect, declines in property prices would also lead to a reduction in bank profitability via indirect channels. During the descending phase of property markets, capital base of banks is undermined owing to increasing provisions in which declines the value of fixed assets. Thus, the banks' lending capacity is limited and inevitably their interest income will fall. Moreover, their fees and commission income from real estate related transactions decline because of a shrink in construction and borrowing activity. This type of risk is more difficult to hedge and is likely to affect the sector as a whole. For all mentioned reasons, declines in property prices may generate a negative feedback on the overall economic conditions.

Altogether, given the large effect of property prices on bank profitability, booms and deteriorations in real estate prices have essential effects for financial stability. Even if large swings in property prices do not necessarily bring the banking sector into distress, they do feature in a number of banking crises in developed and emerging market countries alike (Herring & Wachter, 1999). Hilbers et al, (2001) set typical examples for such cases for Spain in the late 1970s and early 1980s, the Nordic countries in the late 1980s, Mexico in the early 1980s and mid-1990s, Japan in the 1990s, Thailand in 1994-97 and a number of other episodes. An important observation is that the financial system is more exposed to property market fluctuations in financially liberalized economies where effective regulation is not fully developed. After financial liberalization, lending rates tend to be driven down as a result of the entry of new financial institutions, intensified competition among lenders, and removal of interest rate control and administrative control on credit growth. As net interest margins shrink, banks come under pressure to search for new opportunities and may tend to underestimate the risk of new loans. Especially if an effective practical regulation system is not in place, excessive competition can easily lead to increase of financial imbalances. The relaxing of financial imbalances at a later stage triggers the onset of a banking crisis.

Consequences of risk management

Risk management is considered the core of all financial activities. It is fundamental for financial regulators and directors to measure precisely the credit risk exposure of banks and to confirm that such risk does not threaten the stability of the financial system. Basel Committee on Banking Supervision (BCBS) stressed regularly about improving the measurements of the credit risk exposure of banks.

Given the significant share of real estate loans and related industries loans in bank portfolios, banks need to have a clear consideration concerning the impact of property market movements on their balance sheets. Yet, because of a lack of reliable data and the heterogeneity of property markets, the task is typically difficult.

The difficulty firstly arises from the regional and sectoral differences. For instance, real estate loans can have different regularities; they can be granted at fixed or floating interest rates besides household debt interest rates and debt service burden vary across countries. All these features make property assets incomparable across boundaries. To understand the risk involved in individual loans, including default risk and prepayment risk, requires in depth knowledge of local markets and market dynamics. These national differences imply that the risk weights, which are used to decide the level of economic capital, should vary across countries and differ between residential and commercial mortgage loans within the same country. Even within the same category of residential mortgage loans, the credit exposure for principal residence and that for second home investors can be quite different in the event of a housing price decline.

Default correlations add another level of difficulty. The correlation is relevant in at least three dimensions:

1. Mortgage loans tend to have a considerable systematic component in that the default correlation is high. Though mortgage loans on average have a lower default probability, the defaults usually combine when a national market falls into distress. This high correlation is mainly significant in small economies, where the national market offers only limited diversified opportunities as the case of Egypt. By contrast, default correlations tend to be lower in large countries with more regional economic profiles.
2. The relationship between probability of default and loss-given-default. While most credit risk models, including those underlying the Basel Accord, treat probability of default and loss-given-default as independent, empirical studies advocates a strong positive correlation between these two variables. This result is not astonishing since default rates are usually higher during economic downturns.

3. The case of cross-country diversification. Cross-border real estate investment has traditionally been considered a strategy to achieve diversification benefits especially for global commercial property.

Empirical evidence suggests that global commercial property markets have become more integrated since the mid-1980s, albeit a significant diversification benefit from global housing markets is still present. Case et al, (2000) found that changes in GNP have strongly affected by national commercial property markets suggesting that real estate investments are similar to a bet on fundamental economic variables that are correlated across countries. Ignoring the trend of global market convergence will also lead to an underestimation of the capital reserves that are needed for a comprehensive banking system.

VIII. LIMITATIONS OF THE STUDY

The lack of having empirical data to strengthen the study is out of control. I have asked for achieving data about real estate prices, loan availability, real property prices, interest rates for mortgage loans, maximum loan to value (LTV) ratios for both residential and commercial properties in a quarterly data covering the period from 2000 to 2015 through the following sources; Central Agency for Population Mobilization and Statistics (CAPMAS), Housing and Development Bank, and Egyptian Arab Land Bank to support the study with figures and empirical results. Unfortunately, albeit official letters have been sent to achieve the required data plus several visits to the mentioned places, none of the above agencies provides me with the required data.

IX. CONCLUSIONS

The relationship between the Egyptian financial system and mortgage financing is obvious since banking system is considered a key tool to stimulate real estate market. To achieve an effective policy aimed at maximizing the efficiency of the mortgage along with maximizing the profitability of the financial system, boosting economic growth and economic development at its comprehensive prospect, a new strategy has to be followed by policymakers and bankers. This strategy has to focus on giving more attention to economy property market since the demand for economy real estate exceeds the supply. The excessive demand is owing to the fact that most of the Egyptians belong to low and middle-income sets. At the same time the banking system and financial institutions have to stop financing the construction of additional luxurious properties since the market of this type of properties is saturated. This sort of saturation is owing to the fact that the supply of the luxurious properties surpasses the demand plus the targeted sets of wealthy people have shrunken owing to global stagnation besides a sharp decline in oil prices. Although the profitability of the luxurious properties is greater than the profitability of economy units, the

turnover of economy units is higher than the luxurious units. The saturation of the luxurious properties market and the shortage in the economy real estate market involve reallocating resources toward economy real estate. Thus, the role of banking system has to focus on this sort of properties via providing extra loans for both households and constructors.

This reallocation of resources is to avoid the problems of real estate price fluctuations that create more challenges for risk management, financial regulation and policy design and to avoid economic slowdown. The nature of real estate price dynamics and their relationship with financial stability and monetary policy are much-debated questions among academics and policymakers alike. These issues may not be fully resolved in the near future, mainly because of the complication of the market and diversities of market functioning. The lack of reliable data and the quality of data are considered the main problem face the researchers and financial authorities.

Consequently, there is a great need for taking actions aimed at improving the quality of property data and enhancing the comparability of national statistics across countries. Thus, the study is based upon the latest studies of both developed and developing countries plus the characteristics of the Egyptian real estate market and property-related industries.

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