Is There a Real Estate Bubble?

BY DAMIR TOKIC, PHD

INTRODUCTION

IS THERE A REAL ESTATE BUBBLE? IF THERE IS, what will be the consequences on the economy as the bubble bursts? Who will be affected by it, and how? These questions reflect daily worries for a significant portion of market participants and general population such as: homeowners, potential homebuyers, homebuilders, real estate investors, stock investors, bond investors, and policymakers.

Unfortunately, less informed participants are not getting the straight answers, thereby risking losing a significant portion of their home equity or incurring other types of financial losses. Is it questionable even if better informed investors or experts really know the answers to these questions?

We would like to refer the reader to the recent dot.com bubble, when many experts and a few influential academics argued that a dot.com bubble did not exist. Needless to say, billions of dollars were lost as technology stocks plummeted in March 2000. Is it likely that the same will happen again? Except this time, instead of tech stocks, real estate values will drop?

This paper uses a think-tank approach to evaluate the broad real estate market and its impact on economy. It is an exercise that every individual can follow and logically arrive at answers that could save someone's existence. First, the paper presents brief literature on "bubbles" and "bursts." Then, it moves to specific questions regarding the real estate markets.

BRIEF LITERATURE ON "BUBBLES" AND "BURSTS"

Generally, a bubble is a period of time when an asset's price reaches irrationally high levels. The bust is an inevitable price correction. There have been many boom-to-bust episodes in different financial markets, throughout the history. This paper will focus on specific studies on housing bubbles.

Studies that compare housing bubbles with equity price bubbles find that housing price busts were associated with the more severe macroeconomic downturns than equity price busts. Also, housing price booms are more likely to be followed by busts. In particular, five factors account for greater severity of housing price busts:

1. Housing price busts have larger wealth effect on consumption than do equity price busts (Bayoumi and Edison, 2003).

2. Housing price busts were associated with stronger and faster adverse effects on the banking system than equity price busts (Eichengreen and Bordo, 2002).

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Exhibit 1—What does the construction process involve and what are the effects on the economy?

1. Real estate developer borrows from a bank to buy land	■ Bank makes money on interest ■ Lawyers make money on fees ■ Brokers make commissions ■ City makes money on permits issuance ■ Land value increases - Local governments make money on higher property taxes - Local government hires more city workers with increased budget
2. Real estate developer borrows money to begin construction	■ Bank makes money on interest ■ Developer buys raw materials - Price of commodities goes up - Miner companies increase production - Jobs are created in commodity-based industries and countries ■ Developer buys or leases construction equipment - Equipment producers increase production ■ Developer hires construction workers
3. Real estate developer completes construction	■ Buys new tiles ■ New air conditioners ■ New alarms ■ New kitchens ■ New bathrooms ■ Demand for items that go into final product increases, increasing production and jobs in those industries ■ Inspectors make money on final inspections
4. Residential property is sold	■ Real estate agents make commissions ■ Banks make money on interest and fees ■ Lawyers make money on fees. ■ Appraisers and inspectors make money ■ Real estate developer makes profit on sale

3. Housing price busts were more likely to have been preceded by a boom so that there were larger imbalances to be unwound (Bordo and Jeanne, 2002).

4. Housing price busts were more likely associated with generalized asset price bear market than equity price busts (Ito and Iwaisako, 1995).

Exhibit 2—Effects of new home ownership on economy

1. Consumer buys residential property	■ Consumer borrows to buy new furniture - Bank makes money on interest - Production of furniture increases, jobs increase - Furniture retailers make money ■ Consumer decorates house - Home décor retailers make money ■ Consumer buys new technology (TVs, entertainment) for the home ■ If condo, consumer pay maintenance fees. Management firm makes money ■ If house, consumer buys lawn equipment or hires maintenance personnel ■ Consumer pays real estate taxes. - City makes money, hires more people - School districts have larger budgets hire more teachers - Police, fire departments have larger budgets, hire more people - Ports and other city services have larger budgets and hire more people
2. As home prices increase:	■ Consumer takes home equity loan -Banks make money on interest -Consumer spending increases with the extra cash ■ Property taxes increase - City, schools, police, fire department, port have larger budgets and hire more (or spend in other ways) ■ Investors and speculators get attracted to real estate returns - Buy properties for quick resale - Buy 2nd or 3rd homes or condos - Property prices increase even more - Banks make even more money on these loans - Real estate agents, lawyers make money as well
3. As interest rates decrease	■ Consumer refinances and lowers the payments ■ Consumers spending increases

5. Housing price busts were associated with tighter monetary policy than equity price busts (Schwartz, 1995).

Exhibit 3—Real estate pricing factors

Real estate demand factors	■ Population growth - Baby boom cycles - Immigration ■ Ability to buy - Good credit - Full time job - Ability to borrow - Savings for down-payment ■ Housing assistance programs - HUD, Freddie Mac, Fannie Mai - Assistance with down-payment - Guaranteed loans for sub-prime borrowers ■ Low interest rates - Interest payments lower - Consumer builds equity faster ■ Trend of fashion - Desire to upgrade - Everybody is buying ■ Speculation - Rising real estate prices. - Low interest rates - Zero down, interest only mortgage products
Real estate supply factors	■ Land constraints -Regional issues ■ Tear down old housing to build new - Prime locations - Sub-prime locations revitalization ■ Townhouses, high-rises, condos, houses closer to each other ■ Interest rates – ability to borrow

Exhibit 4—Reasons behind motivated sellers

1. Foreclosure	■ Lost a job, unable to make payments ■ Divorce ■ Medical expenses ■ Other unforeseen expenses ■ Unable to pay property taxes ■ Home value falls below the total loan amount, stop making payments
2. Relocation	■ Has to move
3. Defective property	■ Previously unknown environmental hazard emerges. ■ Neighbor problems
4. Life changes	■ Marriage ■ Children ■ Larger or smaller family ■ Retirement
5. Speculators	■ Unable to sell a property bought for investment purposes.
6. Inventory liquidation	■ Developers' supply exceeds the demand, must liquidate the inventory
7. Fear that home equity will be lost due to declining prices	■ Declining home prices may trigger even more selling to protect the home equity ■ Especially for owners with 2nd or 3rd mortgage
8. Interest rates increase	■ Borrowers with variable rate mortgages pay higher interest ■ Possible default as payments increase

THINK-TANK EXERCISE

Our exercise starts with an environment where a real estate developer decides to build a housing project. What does the construction process involve and what are the effects of construction on the economy (Exhibit 1)? It seems like the major effect of booming construction on economy is job creation, not only in construction, but also in services that support construction, and manufacturing that supplies the housing industry.

Once the project is completed and sold out, what are the effects of new home ownership on the economy (Exhibit 2)? New home ownership requires further consumption, including home décor, furniture, and technology. Consumption of other goods also increases as consumer wealth increases due to rising home values. In addition, homeowners pay property taxes, which benefits city budgets.

In our perfect environment a real estate developer builds homes and sells them to public for profits. The reality test of this environment will be a function of consumer demand and the ability to satisfy that demand. Excessive imbalance between the demand for housing and the corresponding supply will greatly affect housing prices. If the demand exceeds the supply, home prices will increase. If the supply exceeds the demand, home prices will decrease. Our next exercise discusses the factors that affect the demand for housing and the factors that affect the supply of housing (Exhibit 3). The major demand factor is the ability of consumers to buy a house. Full time employment is a necessary precondition to: save money for the down payment, afford the monthly payment, and to quali-

Exhibit 5—Reasons for slowing demand for housing

1. Population growth slows down	■ Baby boom cycle ■ Anti-immigrant laws
2. Weak labor market	■ Outsourcing of jobs to India, China and other ■ Slow wage/salary growth rate ■ Popularity of part time—temporary employment
3. Low savings rate	■ No money for down-payment ■ Unable to qualify to loan due to lack of savings
4. Increase in personal bankruptcies	■ The combination of high spending, low savings and sluggish job market could increase personal bankruptcies ■ Bad credit—unable to qualify for mortgage
5. Troubles at housing assistance programs.	■ High default rates in sub-prime mortgage market could discourage further housing assistance
6. Declining home values	■ Keep away speculators
7. Higher interest rates	■ More expensive to borrow money ■ Higher interest payments—slower equity building ■ Higher monthly payments—harder to qualify for the loan ■ Keep away speculators

fy for the mortgage. Supply factors are mostly regional, as the availability of land to build differs across regions. However, as long as the demand is strong, homebuilders can find a way to develop a property on limited land, such as build townhouses or revitalize old neighborhoods.

Now that we understand the housing market pricing factors, we can begin to introduce the discussion whether there is a real estate bubble or not. Our major assumption is that for bubble to arise there has to be a high probability for a sharp decrease in the price. Otherwise, we would not be talking about the bubble. Next, we propose that two conditions would essentially cause the bubble to burst: 1) there have to be motivated sellers (Exhibit 4) and 2) there has to be slowing demand for housing (Exhibit 5). The lethal combination of abundant motivated sellers, with buyers nowhere to be found, is the prescription for housing bust. Real estate speculation is definitely a worrisome activity that can create very motivated sellers, especially if the labor markers are weak and interest rates are rising.

Finally, our exercise ends with the question, if there is a housing bubble, what will be the effects on the economy once the bubble bursts (Exhibit 2). As literature suggests, the consequences of housing bust can be severe for the economy. First, the jobs are lost in construction and in economy wide. Seconds, the wealth is lost as home prices plummet. Both of these are translated into slower consumption. Finally, financial sector suffers as lending activity disappears, and existing loans face defaults.

DISCUSSION—IS THERE A REAL ESTATE BUBBLE?

Our exercise would be worthless unless we are able to answer whether there is a bubble or not. The starting point of our discussion and the major assumption is: for a housing bubble to exist there has to be a significant amount of speculation.

Speculation, in our opinion, can take two forms. First, a real estate developer could overestimate the demand for housing and build an excessive inventory of speculative homes. Second, a homebuyer can speculate by buying properties for investment purposes with the hope to resell them later for profits. These two speculators are very different as homebuilders control supply while speculator buyers control the demand.

The major warning sign for a real estate market is when majority of buyers are speculators purchasing second or third homes for investment purposes. Why? It signals that consumer demand for primary residence is weak due to any reason discussed earlier. If the consumer demand is weak, who is going to buy properties from speculators? Who is going to buy excess inventory from homebuilders?

There has to be a trigger or a tipping point that bursts the bubble. Most likely, that trigger will come either from a home builder liquidating the inventory below the market value, or speculators selling their investment properties bellow the purchasing price. But what would cause such a sell off? Speculators may be willing to hold on to their investments until the cost of holding on to a property increases. Specifically, the prospects of higher interest rates will increase the cost of holding on to investment property and trigger a motivated sell. Declining home values and increasing interest rates will keep away new speculators and further decrease the demand for housing. Excess inventory of new homes and the large number of motivated speculative sales, are likely to cause further decrease of home values.

Exhibit 6—Effect of slow real estate market on economy

1. Less construction	■ Less bank borrowing ■ Less transactions for lawyers and brokers ■ Loss of construction jobs ■ Slowing demand for commodities ■ Slowing demand for construction equipment ■ Slowing demand for tile, kitchen, bath, windows, and other housing products
2. Slower home sales	■ Less bank borrowing ■ Less transactions for lawyers and brokers ■ Lower aggregate commissions for brokers ■ Less business for inspectors, appraisers ■ Less business for management companies and maintenance personnel. ■ Slower furniture sales. ■ Slower home décor sales ■ Slower new technology sales ■ All together, leading to loss of jobs in banks, law firms, brokerages, management companies, retail stores, furniture and construction equipment producing firms
3. Declining land and home values	■ Lower property taxes - Lower budget for cities, schools, police, fire departments, ports… - Loss of jobs and less public spending ■ Foreclosures - Speculators unable to sell investment properties for profit, and unable to sell for loss—no money to close the deal - Loss of jobs associated with slower real estate markets - Higher interest rates for variable mortgage rate borrowers increase payments ■ Loss of home equity, especially serious if home value falls bellow the loan value - Consumer wealth would decrease, affecting the consumer confidence—the wealth effect
4. Stock market downturn	■ Financial sector ■ Construction- and housing-based sectors ■ Commodity-based firms and emerging markets ■ Further erosion of consumer wealth
5. Big picture – the budget deficit problems	■ Loss of jobs, declining property taxes, declining consumer wealth and corporate profits would make it harder to lower the U.S. budget deficit

Slowdown in housing market, as we proposed, would at first cause slowing economy, which would translate into loss of jobs. Homeowners who lose these jobs are likely to miss their mortgage payments and file for bankruptcy. At this point serious consequences would start for the economy as numerous foreclosures further decrease home values and banks feel the increased number of non-performing loans.

In summary, whether there is a real estate bubble or not depends on amount of speculation in these markets. National Association of REALTORS shows that 23% of home purchases in 2004 were by investors. That means that almost 1 out of 4 homes bought in 2004 were purchased only to be resold at the higher price sometime in the future. At the same time, building permits and housing starts continue to grow in 2005 to historically high levels. One only has to take a drive through any U.S. city and its suburbs to notice an abundant supply of newly built condos and single-family homes. One can also notice so many "for sale" signs and "open houses" on existing homes. Isn't this the prescription for a housing bust, as described earlier? In our opinion it is.

There seems to be no data to indicate who are the investors buying second or third homes. However, some analysts suggest that baby boomers have been buying homes for their retirement, which has been the primary demand factor for second homes. Eventually, retired baby-boomers will have to sell their primary residences before moving to their new homes. This will only increase the selling pressures and contribute to the housing bust.

Some other analysts see a high level of short-term home "flipping," where speculators invest in a second, third, or fourth home with the hope to resell them for profits within the short period of time. Sometimes, speculators buy homes/condos while in construction and resell them before the construction is completed.

Another theory is that, after the stock market crash in 2000, baby boomers took money out of the stock market and invested in real estate, hoping that real estate is less risky and more likely to appreciate than the stock market. In addition, a property can be rented out to supplement their incomes in retirement.

Whether baby boomers have been buying second homes to live in them once they retire, or to rent them out to supplement their incomes, or whether other investors have been "flipping" homes for short term gain, a historically high statistic that shows that 23% of homes purchased in 2004 were second home investments is alarming because it indicates unsustainable demand that will inevitably result in bust.

SUMMARY

This paper discusses whether this is a housing bubble or not, and what will be the consequences if such a bubble exists. Using a simple exercise of what happens if, we conclude that there is a housing bubble because speculator investors cause the excess demand, while the speculator homebuilders cause the excess supply. The demand-supply imbalance has to cause the price correction. The only question is for how long speculators will be willing to hold on to their investments, before selling below the purchasing price. We conclude, as long as interest rates are low. Therefore, market participants should closely follow the interest rates as the potential trigger for housing bubble bust.■

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