

STUDY OF PROPERTY MARKET IN JOHOR: AN INVESTIGATION OF PROPERTY BUBBLE PHENOMENON

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Abstract

Home is a basic necessity to provide people with shelter and comfort. Most of the time, housing investment undeniably constitutes the single most expensive investment for most families. For the past fifteen years, housing property in Malaysia has underwent tremendous price increment. However, once the housing price deviates too much from its fundamental value, it may give rise to problems and even generates subprime crisis. This paper discusses the possible existence of property bubble in Johor and what is the state of the current property market in relation to the property bubble phenomenon in Johor. The property bubble is investigated based on different districts by incorporating the examination of macro-economic indicators with micro-measures, using a comprehensive set of indicators to test the bubbles. The analysis applies to residential property, that is single-storey terrace type and double-storey type. The study is done on three districts in Johor using the Rational Expectational Model and Fama-French Three Factor Model. Generally, the study focuses on the existence of housing bubble that stemmed directly from the housing price and the expected housing price in the study area. Besides, this paper also identifies the factors that contribute to the property bubble phenomenon. In conclusion, the findings of this study strongly suggest that the existence of housing bubbles in the Johor residential property market is getting stronger.

Keywords: Housing bubble, subprime crisis, residential property, housing price

Introduction

For the past fifteen years, housing property in Malaysia has underwent tremendous price increment. With our country's current strong economics and demographics display, soaring of the price of residential property is inherent (ZA Hashim 2010). Currently, Malaysia's population is encroaching at around 28.4 million people in year 2010 compared to 23.4 million people in the year 2000 (World Bank 2012). As our country's population is expanding exponentially, the same exponential demand on housing sector is expectable.

The price of a property is assessed based on the factors that influence the value of a property. Location is one of the strongest factors associated with the value of a property. Location and

housing are the two factors having a strong element of exclusivity in which one of these elements will affect the one other element (Nur Faizal Abdullah, 2005).

Along with Malaysia's robust economic growth, house price will continue to soar to a new height and could possibly make it unaffordable in the near future. According to Property Sentiment Survey which was completed in the year 2011, two-thirds of respondents feel properties in Malaysia are too expensive (Steve Melhuish, 2011). Residential property has an imminent role and direct linkage to a country's economic capability and capable to stimulate a more vibrant and vigorous economy. Due to close connections between housing property and economy, a protracted high house price could cause economy meltdown and perhaps a regional financial instability (Abraham and Hendershott, 1996).

Research Background

It has also been concluded that around one million new residents is projected to be required by the year 2020 alone in Kuala Lumpur (ETP, 2012). Statistics by the Real Estate and Housing Developers Association of Malaysia (REHDA) also shows an average increase demand of around 150,000 to 180,000 units of houses each year (REHDA 2010). Housing price in Malaysia is expected to soar immensely in the year 2012-2013 as children born around the year 1970s have entered economic stability and will be keen to purchase high-end houses (Berita Harian, 4th SEPT 2010). With encouraging financial dynamicity, better returns from stock markets, higher income salary and central banks offering better long term interest rates, all these have in turn become a remarkable stimulus to the local housing market (Otrok and Terrones 2004). In 2011, the 'My First Home' scheme launched by the Malaysian government had also been expected to stimulate around 87% of housing transactions throughout the country (Malaysia Budget 2011).

Undeniably, booming of housing prices especially in First World countries showed close relation with monetary liberalization (Englund and Ioannides 1997). Evidences also reveal that during the housing boom, house prices were significantly overvalued (Tsounta 2009).

Moreover, there are also a few factors that have been pushing our local residential property. During the economic crisis in year 1997, there were a huge number of residential property that could not be sold within nine months after its completion (NAPIC, 2010).

Problem Statement

For the past few years, residential property prices recorded few staggering price increment especially in Kuala Lumpur, Selangor and Johor. It has been recorded that in the year 2011 alone, property prices have increased for about 30% (Utusan Malaysia 2011).

This scenario will cause the volume and price of housing to increase. According to the Property Market Report 2011, the volume and value of residential overhang has moved up. The volume and value of residential overhang increased marginally by 2.4% (2010: 23,133 units; 2009: 22,592 units) and 14.5% (2010: RM 4.21 billion; 2009: RM 3.68 billion) respectively against 2009.

Although the price of house is higher, people still buy and invest in the properties. Therefore, the demand for property will increase. Demand for residential is a reflection of the strength of the economy. However, a note of caution is that projections of strong demand usually lead to overbuilding, and eventually an oversupply situation.

Thus, if the housing price keeps going up, it may cause people not being able to afford to buy or invest in property. Therefore, it creates the property bubble phenomenon. Property bubble

is a type of economic bubble that occurs periodically in local or global real estate markets. It is characterized by rapid increases in the valuations of real property such as housing until they reach unsustainable levels relative to incomes and other economic indicators, following by decreases that can result in many owners holding negative equity (Canadian Mortgage Inc, 2009).

According to CIMB Research Head Terence Wong, talk of a property bubble in Malaysia is overstated as the sharp rise in residential property prices over the past few years is confined to selected areas (The Sun Daily, 5th MARCH 2012). This report is also supported by Low Yee Huap, Head of Research, Hong Leong Investment Bank, who stated that low interest-rate environment and accumulation of liquidity has encouraged buying of property which might cause a potential bubble (The Star, 15th MAY 2012). This scenario will lead to the subprime crisis in property market.

Research Questions

- i. What factors contribute to the creation of the property bubble phenomenon?
- ii. What is the state of the current property market in relation to the property bubble phenomenon in Johor?
- iii. To what extent does the property bubble exist in Johor?

Objectives Of Study

- i. To identify the factors that contributes to the property bubble phenomenon.
- ii. To investigate whether the property bubble phenomenon is prevalent in the current property market in Johor.
- iii. To assess the level of property bubble phenomenon in Johor.

Scope

- i. The study is based in Johor, more particularly the District of Johor Bahru, District of Batu Pahat and District of Segamat.
- ii. This study focuses on residential properties, which are single-storey terrace houses and double-storey terrace houses.
- iii. This study will discuss about the factors which contribute to the property bubble phenomenon.
- iv. The data is collected from the Valuation and Property Services Department (JPPH) and National Property Information Centre (NAPIC).

Literature Review

Current Issues On Residential Property In Malaysia

Residential property prices recorded a few staggering price increment especially at Kuala Lumpur, Selangor, Johor, and Penang during the pass few years. It has been recorded that in the year 2011 alone, property prices have increased for about 30% (Utusan Malaysia 2011). The exponential increment have been felt by most Malaysians in which two-thirds of respondents feel properties in Malaysia is too expensive (Steve Melhuish, 2011). Many newlywed couples who wish to live in their own home now have to throw away their dreams and stay with their parents.

Hefty property prices also forces couples to have more financial pressure and career-driven mentalities in order to afford their own home. This in turn would turn out to be a key driver of low fertility rate especially in Hong Kong in which their average birth rate is 1.04 according to the World Bank (World Bank 2011).

Increase in demand for local properties from foreigners have also caused an increase in property prices. In the year 2011, our Deputy Finance Minister Datuk Donald Lim Siang Chai had also pointed out that an average increment of 10-20% will be noted due to increase demand both locally and foreign; and also due to rising inflation in our country (The Star, April 2011).

Moreover, there are also a few factors that have been affected the local residential property. For example, during the economic crisis in 1997, there was huge number of residential properties that could not be sold within nine months after its completion (NAPIC, 2001).

Definition of Bubble

Before examining markets to assess whether there exists a housing bubble, it is necessary to identify what the professional literature defines as a bubble, Some definitions prefer to deal with the speculative nature of the bubble growth, for example, Lawrence Roberts, (2008) concludes how speculative buying fuels the increases in market value:

A financial bubble is a temporary situation where prices become elevated beyond any realistic fundamental valuations. This is because the general public's belief is widespread enough to cause significant numbers of people to purchase the asset at inflated prices, and prices then will continue to rise. This will convince even more people that prices will continue to rise. This facilitates even more buying. Once initiated, this reaction is self-sustaining, and the phenomenon is entirely psychological. When the pool of buyers is exhausted and the volume of buying declines, prices stop rising; the belief in future price increases diminishes. When the remaining potential buyers no longer believe in future price increases, the primary motivating factor to purchase is eliminated; prices fall. The temporary rise and fall of asset prices is the defining characteristic of a bubble (Lawrence Roberts, 2008).

Types of Bubbles

Even if each bubble episode has unique features it might be possible to construct a smaller number of "ideal types" of bubbles, where some specific mechanism dominates. Here are three types of bubbles.

A Pure Speculative Bubble

In this case buyers believe that the price of the asset today is too high and that the price eventually will fall, but believe that price will continue to rise for some time, and that it will be possible to sell with a profit before the price falls. Bubbles of this type have for example been observed in some laboratory experiments where the price of the asset at the end of the experiment is known. As the transaction cost is rather high on the housing market, it should not be expected that this kind of mechanism would dominate periods of rapidly rising prices on the housing markets.

An Irrational Expectations Bubbles

In this case actors on the market become overoptimistic and think that asset prices will grow rapidly over a longer period of time. The growth is expected to be considerably higher than

historical averages. Therefore, it seems rational to pay a high price today. In this case the buyer plans to stay in the house or apartments for a longer period to keep the asset, but thinks that it is reasonable to pay the high price because of a combination of assumptions that is not supported by historical patterns or other strong evidence, for example incomes and interest rates.

The Irrational Institutions Bubble

In this case the main mechanism behind the bubble is principal-agent problems, where actor have incentives to pay higher prices than what is supported by historical patterns or strong evidence. There are several ways that a principal-agent mechanism can push house prices above what is justified. The core of the mechanism is however, by definition that the buyer of the house/apartment does not expect to take the losses that occur when prices fall dramatically. The person who lends to money also expects to be able to shifts the losses to someone else, maybe the government in the end. The sub-prime lending is the latest example of this (Wheaton & Nechayev 2008).

Causes of Real Estate Bubble

The Macroeconomic Situation and Policies

Bubbles typically start in a rather extreme boom period that has lasted for a comparatively long period. It can also be hypothesized that it is a period where the macroeconomic policies have been rather lax. Real estate industry develops while policies don't follow the pace. The problem lies with the government basically.

The Capital and Credit Market

Kindleberger (2005) underlines the role of the credit market for asset price bubbles: "The thesis in this book is that the cycle of manias and panics results from the pro-cyclical changes in the supply of credit." It means that many of the real estate bubbles are related to generous lending policies by the banks.

Expectation

The expectation has an impact on the demand and supply of commercial goods, and to the real estate market this rule is more remarkable. On the one hand from the perspective of demand, consumers will postpone their purchase when they have expectation that the prices of commercial real estate are going down, which reduces the purchase in the market and then further reduces the demand from expectation.

Speculation

Speculation is a financial action that does not promise safety of the initial investment along with the return on the principal sum. Speculation typically involves the lending of money or the purchase of assets, equity or debt but in a manner that has not been given thorough analysis or is deemed to have low margin of safety or a significant risk of the loss of the principal investment. In a financial context, the terms "speculation" and "investment" are actually quite specific.

Macroeconomic Factors Affecting Demand And Supply

Economic Factors

International economic scenario is one factor that may have impact on the property market (Ismail Omar, 1997). For example, the rising cost of loans and interest rates in 1973 resulted in demand of shop houses going down and it led to a decline in prices and rentals for the property. Property supply was also affected by the condition of the economy at that time and consequently the property market downturn.

In time of economic growth, the residential sector will be developed rapidly. Therefore, the demand will increase and thus encourage the supply market.

Social Factor/ Demographics

Income, household size and consumer preferences are important factors in analyzing the development of residential and trade (Wurtzebach & Miles, 1994).

The population will eventually lead to an increase demand and supply for the property (Hamid, 2006). Hence, lot of people will promote business or trade. Therefore, indirectly the demand for shophouses as a place business will increase and thus promote home supply by developers.

Political Factors

The rules set by the government can encourage demand and supply of residential real estate or vice versa. According to Malpezzi and Mayo (1997) and Hamid (2002), Malaysia is among the few countries with the most regulatory properties. In Malaysia, government regulations are often regarded as obstacles to the developer which influence the supply of real property.

Microeconomic Factors Affecting Supply And Demand

Micro factors are factors which influence demand and supply of property directly in development projects. Most of these factors are related to the characteristics of the property, and the demographics of the buyer profile (Hamid, 2002).

In this study, the focus is on factors affecting the micro-home supply in housing only. Some of the microeconomic factors that influence demand and supply are given as follows:

Demand Factors

- i. Location and Accessibility
- ii. Public Facilities
- iii. Financial Loan/ Credit Facilities
- iv. Other Factors

Supply Factors

- i. Location
- ii. Credit Facilities
- iii. Construction Cost
- iv. Labour Supply
- v. House Price and House Rental
- vi. Total Current Residential Houses and New Projects
- vii. The Vacancy Rate

Models

Proportional Hazard Model

This model is to describe the effects of factors which may influence the time-to-failure of an individual. These variables can be continuous such as levels of radiation until remission or indicator variables such as gender. In this Model, covariates can be used to explain some of the variability in θ , the scale parameter, or y , the shape parameter.

$$\theta = \exp\{\beta_0 + \beta_1 x\} \quad \text{or} \quad \log(\theta) = \beta_0 + \beta_1 x.$$

This ratio is a constant proportion that depends only on the covariate and not on time, thus it is called a proportional hazards model.

Cox Proportional Hazards Model

Cox (1972) introduced a model for survival time that allows for covariates but does not impose a parametric form for the distribution of survival times. Specifically he assumed that the survival distribution satisfies the condition:

$$h(t | x) = h_0(t) \exp\{\beta x\}, \quad t > 0$$

It is mostly used in biostatistics.

Fama-French Three Factors Model

The Fama-French Three Factors Model can be used by serious investors to construct a better investment portfolio.

The relationship among variables could be represented as stated by the rational expectation theory, or also known as the Fama-French Three Factors, by the following function:

$$B_t = P_t - [P_{t-1} (1 - r) - D_{t-1}]$$

Where,

B_t	= Housing Bubble
P_t	= Intrinsic Housing Bubble
P_{t-1}	= Previous Housing Bubble
r	= Lending Rate
D_t	= Rent Paid to the Property Owner

Methodology

Generally the main method of research to get the data is qualitative approach. Qualitative research is a type of scientific research. Qualitative research is especially effective in obtaining culturally specific information about the values, opinions, behaviors and social contexts of particular populations. During the qualitative research phase of this study the researcher utilized

the instrument of semi-structured interviews. According to Merriam Webster (2010), an interview is a meeting in which information is obtained from the party being interviewed. Interviews were analyzed by means of stripping the content of the results of interviews carried out.

Overview of Research Methodology

A general overview of the methodology of the research is summarized in the chart below:

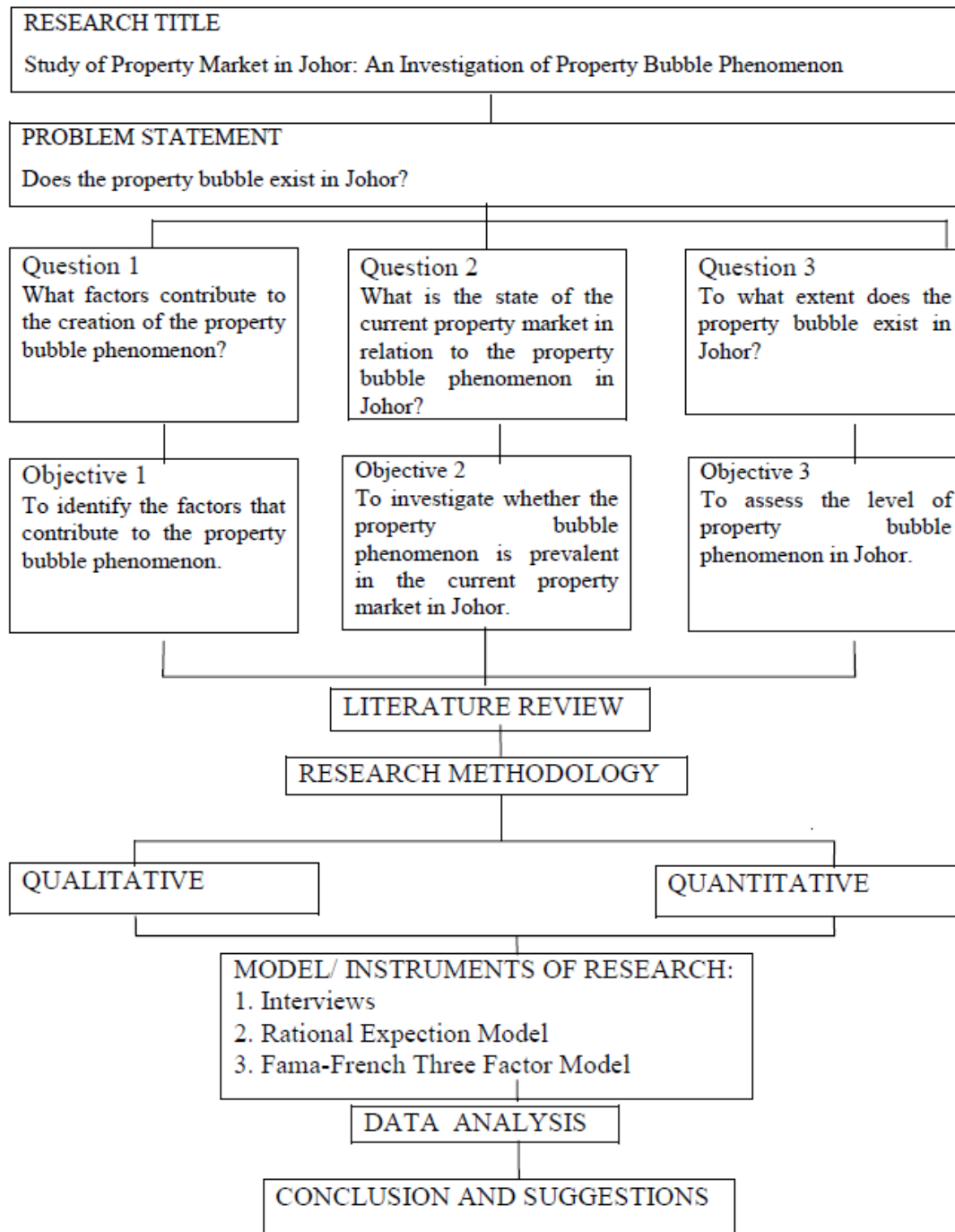


Figure 1.0 : Research Framework

Source : Researcher, 2012

Expected Research Outcomes

This study hopefully will successfully test and discuss the existence of property bubble in Johor. The expectation of current market value will be highlighted in order to provide a clearer information regarding the current market to the new buyers or investors. Factors causing the property bubble phenomenon that happen in Johor will be identified and hence will decrease the incidence of occurrence of property bubble. It is hoped that this study will be a useful reference and guidance for local property buyers, investors, developers or even valuers to ensure the continuous acceptable level of performance of the property market and forbid the burst of the bubble in our country's economy.

Conclusion

In conclusion, this paper aimed to provide a general overview of the existing residential property market scenario in relation to the property bubble phenomenon in Johor. This included the research methodology taken to obtain data that could provide a deeper insight into the problem. The research process was also designed to provide a clear view regarding the steps and research instruments needed. This acts as a precursor for the next step of the study, which is the actual process of obtaining the data through the research methods identified for the study. Lastly, this paper also shows other elements that highlight the main points of the study which is still at the preliminary stage.

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