RESIDENTIAL PROPERTY PRICE HIKE
AND SPECULATION

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ABSTRACT

This report provides an analytical overview of the behaviour of property price in Malaysia by examining factors influencing the property prices. It aims to determine whether property prices in Malaysia can be explained by the fundamental factors (macroeconomic and financial) or it is due to other unexplained factors. One of the unexplained factors could perhaps be speculation activities and this study intends to explore this possibility. This investigation on the existence of speculation in property market contributes significantly to the body of knowledge thus fills the gap in the literature of property market, particularly in the Malaysian setting. Several quantitative research methods and time-series econometric analyses are employed to meet the objectives of the study and these include the Dynamic Ordinary Least Square (DOLS), Johansen Cointegration Test, Autoregressive Distributed Lags (ARDL) Long Run Estimation, Vector Error Correction Model (VECM), Vector Autoregressive (VAR) and Augmented Dickey-Fuller (ADF). The findings from this study reveal that, based on the different segments of property prices (aggregate, terraced, detached, semi-detached, high-rise) and different states, most of the factors do have significant relationship with property price. In addition, the cointegration analysis indicates that the property price and its factors are cointegrated for all property market segments across states. This implies the presence of a long run relationship between the property price and its determining factors, despite slow adjustment of property price towards equilibrium in the long run. Slow adjustment denotes a persistent deviation from price equilibrium reflecting inefficiency in the residential property market in Malaysia. Results of the granger-causality test indicate that current property price is influenced only by its own past values, which means today's property price is influenced by the previous three months property price plus the cost of construction. Furthermore, there is a presence of ripple effect in which the house prices in KL, Negeri Sembilan, Perak, Penang and Melaka have spreading effect on other states in Malaysia and this implies that the residential property market in Malaysia is integrated. This study concludes that the residential property price hike in Malaysia is impacted by fundamental factors and is not speculative in nature.

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INTRODUCTION

1.1 Problem Statement

Empirical research documents that property price is closely related to a set of macroeconomic factors and market-specific conditions, which are expected to influence both the demand and the supply side of the market (Ciarlone, 2015). Property prices in general are influenced by economic fundamentals as well as supply and demand dynamics of the local housing market. In general, property price has been showing an increasing pattern over time worldwide (Egert and Mihaljek, 2007; Ong, 2013; Osmadi et al., 2015; Kamal et al., 2015; The Economist, 2016).

Literature shows that researchers use the aggregate House Price Index (HPI) to represent property price. Glindro et al. (2011) uses the HPI in their studies on factors affecting property price in nine Asia-Pacific economies (Australia, China, Hong Kong, Korea, Malaysia, New Zealand, the Philippines, Singapore and Thailand). Similarly, studies on Malaysia also use the HPI to represent property price (see for examples, Lean and Smyth, 2014; Ibrahim and Law, 2014; Zandi et al., 2015; Tang and Tan, 2015). The HPI is made available by the National Property Information Centre (NAPIC). Apart from the aggregate HPI, NAPIC also publishes four sub-indices corresponding to various types of houses, namely, Terraced Houses, Semi-Detached Houses, Detached Houses and High-Rise Houses. Among the various types of houses, terraced houses seem to be the most important type of houses since they receive the dominant weight in the construction of the aggregate HPI i.e. 72.7% (Ibrahim and Law, 2014). Besides the HPI, there are also other measures employed to represent property price, for example the historical residential property prices by Hui and Ng (2012) in their study on Hong Kong property market.

The phenomenon of property price hike has caught considerable attentions from researchers and policy makers worldwide. Most studies focus on determining the factors contributing to the increasing pattern of the property price regardless of the economic landscapes. In doing so, researchers incorporate various possible factors based on different methods that may influence property price which include macroeconomic, demographic, industry, location and land/zoning (Egert and Mihaljek, 2007; Glindro et al., 2011; Ong, 2013; Ibrahim and Law, 2014; Pillaiyan, 2015; Zandi el a. 2015; Tang and Tan, 2015; Kamal et al., 2016).

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1.2 Purpose of Study

This report provides a comprehensive overview of property price in Malaysia by examining factors influencing the property prices. Using an appropriate statistical analysis and econometric modelling, this study investigates the significant factors influencing property price in Malaysia as well as the existence of a long-run equilibrium relationship between property price and the identified factors. The main objective of this study is to analyze the relationship between property price and speculation. It aims to determine whether property price in Malaysia can be explained by the fundamental factors (macroeconomic and financial) or it is due to other unexplained factors. One of the unexplained factors could perhaps be speculation activities and this study intends to explore this possibility. This investigation on the existence of speculation in property market will contribute significantly to the body of knowledge thus fills the gap in the literature of property market, particularly in the Malaysian setting.

1.3 Research Questions

This study analyses the relationship between residential property price hike and speculation and is focusing specifically on answering the following research questions:

What are the significant macroeconomic and financial factors influencing the residential property price in Malaysia for the period of 2000-2015?

How is the long run behavior of the residential property price?

What is the ripple effect of the residential property prices across different states and different residential property market segments in Malaysia?

Does speculation present in the property market in Malaysia?

1.4 Research Objectives

This study analyses the relationship between residential property price hike and speculation and is focusing specifically on the following objectives:

To determine the significant macroeconomic and financial factors influencing the residential property price in Malaysia for the period of 2000-2015.

To examine the long run behavior of the residential property price. This includes measuring the speed of adjustment towards the equilibrium, the influence of lagged factors and the response of residential property price towards shocks in the identified factors.

To examine the ripple effect of the residential property prices across different states and different residential property market segments in Malaysia. The presence of ripple effect indicates that house price in one state may have a spreading effect on house price in other states.

To conclude on the presence of speculation in the property market in Malaysia.

2.0 LITERATURE REVIEW: FACTORS AFFECTING PROPERTY PRICE

As mentioned earlier, several commonly cited factors affecting property price have been highlighted in previous literature like the gross domestic products (GDP), interest rates, inflation, property loans growth, money supply, stock market performance and population growth. This section reviews previous literature with regards to these identified factors affecting property price, the common measures used by researchers in representing the factors and the findings on the relationship between the factors and property price.

2.1 Gross Domestic Product (GDP)

GDP is identified as one of the important factors influencing property price. Ciarlone (2015) and Pillaiyan (2015) argue that real GDP as the main factor determining property price. According to Zhu (2004), real GDP growth encompasses information related to household income, such as unemployment and wages. The GDP growth also provides a measure of the state of the business cycle and household income (Tsatsaronis and Zhu, 2004). Most research findings show significant positive relationship between GDP and property price (see for examples; Ong, 2013; Ibrahim

and Law, 2014; Zandi et al., 2015). Ibrahim and Law (2014) put forward that the positive relationship between GDP and property price is explained by the positive effect of GDP on the economic prosperity in the form of higher disposable income and the expansion of property loans growth. These will push the demand on property higher causing the price to increase. Nevertheless, Zhu (2006) reports an insignificant relationship between the GDP and property prices in Hong Kong, Korea and Singapore. So does Pillaiyan (2015) where he shares similar insignificant relationship between GDP and property price in his study on Malaysian property market. To measure GDP, most researchers employ real GDP as a common proxy in their studies (see for examples, Ong, 2013; Ibrahim and Law, 2014; Pillaiyan, 2015).

2.2 Interest Rates

Interest rates are another influencing factor incorporated by researchers in examining property price (see for examples, Zhu, 2004; Ramazan et al., 2007; Tang and Tan, 2015). Looking at property transactions, as most purchases are done on credit, an increase in interest rates may result in additional costs to home buyers. Payment on loan installment is generally determined by the loan amount, interest rate and the duration of the loan. A lower interest charge on the loan will result in a lower monthly payment. Zhu (2004) states that consumers' property purchasing decisions are more sensitive to the interest rates charged on the loan than to the size of the loan in relation to the household income.

Interest rates are commonly measured using short term money market rate (Ibrahim and Law, 2014) and average lending rates (Tang and Tan, 2015). Sutton (2002) and Tsatsaronis and Zhu (2004) show that the nominal interest rates perform better than the real interest rates in explaining property price, given that banks typically make the decision to grant a housing loan based on the ratio of debt servicing costs to income, depending on the nominal and not the real rate. Common findings are observed on the inverse relationship between interest rates and property price. Ramazan et al. (2007) record an inverse relationship between interest rates and property price with different effects across different states of economy. They find stronger relationship in the developed economies compared to that of the developing. This could be due to the fact that developing economies have a less mature financial market and are thus borrowing constrained. This notion is enhanced further by Ibrahim and Law (2014)