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# FACTORS THAT LEAD TO THE HOUSING BUBBLE: A SURVEY



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## Summary

This research is undertaken to determine the factors that lead to the housing bubble. From the literature survey, seven factors have been identified for the formation of housing bubble and four factors have been identified for the housing bubble burst. All factors were tested to the home buyers in order to obtain their opinions. As a part of the behavioural study, the questionnaires has been distributed to 224 respondents who bought their houses in Klang Valley within the year 2010 to 2016. Data collected through the questionnaire survey was analysed using the Statistical Package of Social Science (SPSS). As a result, majority of home buyers believe that the demographic changes, housing market speculation and overvaluation by property valuers are the main factors lead to the formation of housing bubble. Meanwhile the main factors that lead to the housing bubble burst are identified as poor performance of economic activity followed by high interest rate of housing loans, mortgage defaults by the borrower and house sales by retired baby boomers. Despite its exploratory nature, the study provides a basic understanding on the possible factors lead to the formation and bursting of the housing bubble. The results concluded that home buyers tend to see the fundamental as the most influential factors affecting the housing market climates.

## Keywords

housing, housing bubble, housing bubble burst

## 1. Introduction

**H**ousing bubble is one of the inevitable phenomenon in real estate market. Housing bubble occurs when the market is experiencing unusually high volumes of buying and selling and prices are rising at extraordinary levels. According to Grover and Grover [2014], bubble exist because the prices paid are in excess of the fundamental values and it takes time for a bubble to burst and the price remains to what is

justified by the fundamentals. Having a similar principle like a property cycle, housing bubble is considered complete when it went through the bursting phase. Questions have been raised about the existence's timeline of the housing bubble from its formation until housing bubble burst as there is still no universal indicator that seeks the relationship between time horizon and the degree of bubble. One empirical study by Pitros [2014] in UK housing market only focuses on the impact of the bubble

formation towards its length. The shorter length of bubble formation (1980s bubble) ended suddenly whilst the longer length formation of a bubble (2000s bubble) ended gradually. However, this finding might be different if applied in other cities and areas.

No matter how long the bubble take place, the rapid increase of house price will give an adverse impact to the housing market when the price reaches its peak and starts to implode. This implosion process is commonly known

as the bursting of housing bubble and according to Zainuddin [2010], it can severely impact in the loss of capital values, increase in unemployment as well as the slowdown of the economy that related to the housing market. Therefore it is crucial to understand the risk of housing bubble because it will give negative impacts on wider economy when it burst. A lot of research has been undertaken in identifying the factors contribute to the housing bubble and how to prevent it. Besides that, numerous literature emerged to discuss the methods to assess the bubble by using the existing as well as a newly-developed model.

For example, McDonald and Stokes [2013] presented the results for a two-variable vector autoregressive (VAR) model for house prices and the federal funds rate in which negative shocks in the federal funds equation have a positive effect on house prices, and positive shocks in house prices increase the federal funds rate. This coincided with Yiu [2009] and Chen et al. [2013]. Yiu [2009] in his time-series regression analysis on macroeconomics variables signify that the negative interest rate is the significant factor of housing bubble implosion in Hong Kong in 1998 and 2008. Meanwhile, Chen et al. [2013] using Vector Error Correction Model (VECM) indicated that there is a positive relationship between house price and interest rate in Beijing. Instead of interest rate, Chen et al. [2013] also found that house price will increase by 20 percent if the Gross Domestic Product (GDP) growth increased by one percent.

Such studies are highly apparent as it shows the direct impact of fundamental factors towards the house price movement. Generally, research on the subject has been mostly restricted to fundamental factors. In contrast, this paper also attempted to highlight several other behavioural factors that lead to the housing bubble. The literature review in the next section elaborates more on the definition, method to assess and the factors that lead to the formation and the bursting of housing bubble.



View on Petronas Towers, Kuala Lumpur. Source: <http://pl.wikipedia.org>. Author: EEM

## 2. Literature review

### 2.1 Overview of housing bubble

A large number of empirical and conceptual research specifically discuss on the housing bubble and according to Hou [2010], the definition of this subject varies in different perspectives in accordance to the aims of the specific study. The classical definition of the housing bubble as cited in many studies is described as a deviation of house price from its fundamentals. As yet this definition is still being used with a few modification based on the basis of recent studies. For example, by using a control chart (normal distribution in probability theory) as a measurement, Hou [2010] modified the definition of a bubble as an abnormal deviation of house prices from the fundamental value. Other researchers such as Ning and Hoon [2012] defined real estate bubble as a process of continuous price increase detached from real value and the excess of sale over the moderate price dictated by the market.

Although there are slight differences, the definition proposed by both researchers maintains the elements of fundamentals as a cause for the rapid price increase. In reference to these definitions, fundamental is seen as a situation on what the housing market should be functioning. In spite of that, there is still a heated debate among researchers and economists on the fundamentals in the housing market, as no solid concepts in determining the basics have been agreed upon. According to Joeiges et al. [2015], fundamental value has not been clearly defined in the empirical literature. This lead to a misunderstanding of concepts and indicators used to determine the fundamentals.

One of the famous definition of a bubble by Stiglitz [1990] also linked with the fundamental elements. Stiglitz [1990] pointed out his famous straightforward basic intuition: “if the reason that the price is high today is only because investors believe that the selling price will be high tomorrow – when fundamental factors do not seem to justify such a price – then a bubble exists” (Stiglitz, 1990, p. 13). To date, this definition has been cited (see Lind 2009; Grover & Grover 2014) and criticised in many researches in describing the housing bubble.

Lind [2009] however rejected Stiglitz’s definition based on three flaws found. Firstly the definition only focuses on the price increase rather than refer to the bubble episode as a whole. This claim

is also applicable for definition by Tokic [2005] where the bubble is defined as a period of time when an asset’s price reaches irrationally high levels. Secondly, it encompasses two different ways in explaining the price increase (expectations and fundamentals) and finally, the vagueness of term fundamentals. Lind [2009] then sets out a new definition where “there is a bubble if the (real) price of an asset first increases dramatically over a period of several months or years and then almost immediately falls dramatically” (p. 80). Lind’s definition is more precise and comprehensive because it recounts the rise and fall in prices besides unbiased as he excludes all factors influencing the price movement in the definition. It is inappropriate to mention only certain factors (either people’s expectation, fundamentals and other factors as cited in the most definition) since the formation of a bubble is attributable to numerous reasons. Lind [2009] also emphasised that instead of making an exact definition of a bubble, one should focus on developing the numerical indicators in terms of the degree of house price increase and fall based on the adjusted historical patterns in the specific market. The next paragraphs explain the methods to assess the housing bubble.

There are generally two methods to measure the degree of bubble namely index method and modelling method. Index method is easy to understand as it can directly illustrate the degree of bubble such as HPI and a few significant ratios namely house price-to-income ratio as well as house price-to-rent ratio. HPI is one of the most important indices in real estate and has been recently used in a time series test by Escobari et al. [2015] in US housing market. This time series test does not require any information on market fundamentals as it analyses the differences in the rate of change of the tiered price indices to identify breaks, which corresponds to the origin and the burst of the bubbles. Meanwhile, house price-to-income ratio is the easy step in measuring the housing affordability because the affordability is commonly associated to house price bubble. Several researchers have relied on this ratio in their study (see Hou 2010; Ning and Hoon 2012; Chen et al. 2013; Pitros 2014). In relation to house price-to-rent ratios, Holtemoller and Schulz [2010] found that the irrational manner of the housing market is due to an imbalance between the house price and rental price in Berlin.

Many models have been developed and constantly improved over time as an



alternative to index analysis. According to Escobari et al. [2015], the traditional method to test for housing bubble is to examine the deviations from market fundamentals. However, the booming of house price cannot be solely attributed to fundamental factors as it also were driven by expectations. The Rational Expectation Theory has been introduced by John Fraser Muth one of the American economist in his article, "Rational Expectations and the Theory of Price Movements" in 1961 and according to Hou [2010], it became mature during the 1980s when the school of rational expectations formulated the mechanisms of bubble formation. The rational expectation model has been developed by incorporating the present value model and used widely since then. The hypothesis of this theory is by assuming that individuals take into account all available information in forming expectations. Even though the expectations may turn out incorrect, they will not deviate systematically from the forecasted values. The rational expectation model is actively being used such as in Hou [2010], where the bubble appears to exist in Beijing and Shanghai between 2005 to 2008 and 2003 to 2004 respectively.

## **2.2 Factors that lead to the housing bubble**

It is often discussed that the emerging of bubbles lead to the difficulties of people in possessing a house as the price goes beyond their abilities. They are several key factors contributing the housing bubbles as discussed in the recent literature.

### **2.2.1 Loosen standards of mortgage loans**

Housing market is very depending on the financial institution whether to cover the end finance for home owners and bridging finance for housing developers. It demonstrates that the financial institutions are the major contributors in transmitting a property bubble in the economy. Loosen standards for mortgage loans by these institutions for example, a low general level of interest rates, plus the short-term interest rates will make a house more affordable to be owned. Mortgage lenders innovatively charge the mortgage rate with low initial monthly payments besides non-complex access to credit which lead to the growth in the number of loan borrowers in the market.

Tsai and Peng [2011] revealed that lower interest rate as a result of the expansionary of monetary policy by government and financial institution are the major contributor the formation of the housing bubble in Taiwan. The same thing happens in the US whereby the easing of monetary policy is the cause of the housing market imbalance in the US. McDonald and Stokes [2013] indicated that the system used by Federal Reserve in interest rate policy that lowered and held down the federal funds rate within 2001 to 2004 was at least one contributing factor of the housing bubble in US. Logically, the market should works well if the interest rate declines because the public has the option to save more, consume less now, and consume more in the future. However, the decreasing of interest rate designed by the monetary authority which is the central bank will be expanded in two inconsistent ways, either to promote increasing investment projects or to encourage the consumer to save less.

### **2.2.2 Technological changes**

The technological changes bring wide changes in the businesses that require property, so the demand is likely to change, with some sectors growing rapidly and other being eclipsed. The advancement of technology has slightly changed the consumers' buying behaviour as they prefer to buy online rather than in-store shopping because of its cost-saving benefits. This expansion has affected the demand in commercial sectors due to its contradiction with the traditional business that requires a pure commercial unit such as shop lot and shop office. Owning or renting a commercial unit is no longer a priority to run a business nowadays. Therefore, instead of occupying a commercial unit, the business operators can prefer to stay at a place that can simultaneously be used for a living and business purposes such as common residential unit and small office home office (SOHO) which offers a lower operating cost and service charge.

### **2.2.3 Demographic changes**

Changes in the demographic structure are one of the key determinants of the housing bubbles. It made a huge impact especially with the increase in young people. As more and more young people enter the working environment, they are more likely to buy their first property at

a young age, thus adding to the existing demand for housing. In addition, rapid urbanisation in some key states and employment centres also contributed to the increase in demand for houses in urban areas. Recognising the influence of demographic in the formation of a bubble, Case and Shiller [1988] stated that national demographic trends have been included as one of the macroeconomic variables in many models of house price movements.

### **2.2.4 Overvaluation by property valuers**

In valuation sector, property valuers often refer bubble as a froth in the prices paid in periods of rapidly rising prices, signifying that some part of the price observed in sales evidence derived from the latest comparable transactions cannot be justified by fundamental factors, but reflects a speculative element. Thode and Culp [2013] explained that sales comparison in the valuation sector are relied strictly on the absolute level of the sales prices of similar property and locality as real estate is a free market without taking into consideration the equilibrium of the price transacted. These explanations tend to refer to the overvaluation rather undervaluation. However, it does not make a clear distinction between overvaluation and bubbles.

### **2.2.5 Housing market speculation**

According to Lai et al. [2009], housing speculation is achieved due to the infirmity of the market mechanism, irregularity of information as well as price arbitrage action by speculators. The speculative and risky behaviour by home buyers and property investors encouraged by their expectation for future prices appreciation will further expand the existing housing boom. Tokic [2005] stated that the existing of the housing bubble is due to two speculations contributed by the investors and housing builders. Real estate developer could overestimate the housing demand and then built an excessive inventory of speculative houses whilst real estate consumer continues to speculate in the market. As a result, speculation committed by investor will cause excessive demand whilst speculation by house developers will lead to the excessive supply of houses. The intuition is that rational bubbles can only arise if there is a shortage of assets affecting from this speculation.

### 2.2.6 Irrational exuberance

Irrational exuberance is defined as a heightened state of speculative fervour. Generally, irrational exuberance is a form of improper enthusiasm by the unsustainable investor towards the property ownership and values beyond the fundamental basis. Home buyers who contributed to the housing bubble assume that the house prices would continue to rise and motivate peoples to invest in the property sector. A boom in house prices represents a major redistribution of wealth and those who own houses see their equity increase while those who do not face higher rents and reduced probability of owning.

### 2.2.7 Negative buying behaviour

According to Triantafyllopoulos and Kandyla [2010], most of the home buyers' decision were influenced by the assimilation of information and opinions by individuals rather than the mass media. Kohn and Bryant [2010] also claimed that the consumer buying behaviour were influenced by the negative factors such as greed, the desire to live in a high-end and larger house, the need to build retirement assets, and desire to get the appreciation of their house value in future. As a result, this behaviour leads to unsustainable increase in house price because everybody is scrambling to buy a house before it becomes costly in future. This were supported by Haughwout et al. [2011] where during the boom, many of the buyers of single-family houses were actually investors.

## 2.3 Housing bubble burst

According to Lind [2009], for a bubble to exist, it must eventually burst so price falls are an intrinsic part of bubbles and any definition of bubbles must embrace this. The bursting process of the housing bubble is the final phase where the rising of price reach an unbearable level by fundamentals and all property market players. When the housing bubble burst, the prices start to decline. The purchasing rate of the new property also declined as most prospective buyers indicate that the future price would be lower or might fall more severely just like a current situation of the bursting housing bubbles. There are a few arguments on the factors that lead to the housing bubble burst as follows.

### 2.3.1 High interest rate of housing loans

According to McDonald and Stokes [2013], the salient increase in the federal funds rate in the US within 2004 to 2006 was a cause of the subsequent decline in house prices. The study also summarised that the housing bubble and the subsequent fall of house prices are the effect of the monetary policy enforced through the federal fund rate. Increasing interest rates of a mortgage will contribute to people unaffordability to buy the property thus reducing both the total transaction value and volumes in the market. Meanwhile, the existing loan by the home owners turns into a bad loan which resulted in mortgage default and foreclosure.

### 2.3.2 Poor performance of economic activity

Besides the factor of a high rate for home mortgages, the housing bubbles are susceptible to burst due to a poor performance of economic activity. Grum and Grum [2012] found that the real estate market in Slovenia is greatly react to the global financial crisis. The study reported that the economic declined in the 2008 has resulted to a subsequent fall of the average annual Slovenia's real estate prices including housing market in 2009. A poor performance in the economic sector will increase the unemployment rate and the rate of job loss, reduction in savings and indirectly reduce the aggregate demand for houses in the market. Moreover, a high household debt levels as a result of this condition also deters the population from buying a house during this period.

### 2.3.3 Mortgage default by borrower

Recognising the lack of equity interest in the property, the home owners may fail to keep their properties well-maintained and protect the house against damage or engage in acts that damage the value of the property. The lower the income of the borrower, the higher the probability of mortgage defaults. It is also applicable for the liabilities bears by the home owners. Besides that, the high interest rate committed by borrowers through Adjustable Rate Mortgage (ARM) also have a higher default potential. ARM helps the buyer to finance their house by offering a lower initial interest rate. This

rate is set lower than the market rates and usually guaranteed for one year. However, if the interest rates increase, the amounts of payment also increase. Under this mortgage instrument, bank implicitly provides opportunities for home buyers to raise their revenue to make payments when the repayment amount increases. If loan applicant fails to match their credit profile during the increase of repayment amount, they will not be able to secure the loan. Failure to pay such mortgage will only result in difficulties in obtaining the loans for new house in future as banks will look at the track record of mortgage payments.

### 2.3.4 House sales by retired baby boomers

Tokic [2005] stated that one of the causes of the housing bubble is due to baby boomers buying houses for their retirement, which has been the primary demand factor for second houses. Eventually, baby-boomers that have been retired from their work will have to sell their primary residences before moving to their new houses. Too many units to be sold simultaneously in the market will eventuate in a sharp decline in house price in several places.



Menara Maxis (Maxis Tower), Kuala Lumpur, Malaysia  
Source: <http://pl.wikipedia.org>; Author: Marcin Konsek

### 3. Methodology

Generally, the study employs a quantitative approach. As a part of the behavioural study, the questionnaire survey has been distributed to 224 respondents who bought the house in Klang Valley within the year 2010 to 2016. Based on 5-point Likert scale ranging from 1 = no influence; 2 = less influence; 3 = neutral; 4 = influence; 5 = great influence, respondents are required to specify the influential level of the given factors (seven factors of housing bubble formation and four factors of housing bubble burst) and data was analysed using the Statistical Package for Social Science (SPSS). In order to provide a basic

summary of items measured, descriptive statistics which basically in the forms of mean score and standard deviations were used. All factors is then ranked according to the mean level to establish the perception of home buyers on which factors contribute more and less to the housing bubble.



Kuala Lumpur City Hall; Source: <http://pl.wikipedia.org>; Author: Cephoto

### 4. Results and discussion

Table 1 shows the demographic profile of respondents. Majority of respondent (28.6% and 28.1%) are aged between 30 to 39 and 20 to 29. In terms of gender, the participation in this survey is nearly equal between male (53.6%) and female (46.4%). The race in this study is more favourable to Malay where its higher percentage is recorded at 85.7%. Chinese is stood at 6.3%, followed by Indian at 4.9% and other races at 3.1%. Majority of the respondents have a higher educational levels (39.3% of Bachelor, 17.0% of Diploma / STAM / STPM and 1.8% of PhD). 41.1% of respondents are working in the private sector, followed by 26.8% at government

**Table 1**  
*Demographic profile of respondent*

		Frequency	Percentage	Total
Age	≤ 19	7	3.1%	224 (100%)
	20 – 29	63	28.1%	
	30 – 39	64	28.6%	
	40 – 49	41	18.3%	
	50 – 59	30	13.4%	
Gender	60 ≥	19	8.5%	224 (100%)
	Male	120	53.6%	
Race	Female	104	46.4%	224 (100%)
	Malay	192	85.7%	
	Chinese	14	6.3%	
	Indian	11	4.9%	
Employment Sector	Others	7	3.1%	224 (100%)
	Government	60	26.8%	
	Private	92	41.1%	
	Self-employed	40	17.9%	
Income Per Month	Others	32	14.3%	224 (100%)
	≤ RM1500	43	19.2%	
	RM1,501 – RM3,000	69	30.8%	
	RM3,001 – RM4,000	43	19.2%	
	RM4,001 – RM5,000	23	10.3%	
Marital Status	RM5001 ≥	46	20.5%	224 (100%)
	Married	159	71.0%	
	Single	57	25.4%	
Last Time Purchase a House	Divorcee or widowed	8	3.6%	224 (100%)
	2016	47	21.0%	
	2015	28	12.5%	
	2014	17	7.6%	
	2013	20	8.9%	
	2012	11	4.9%	
	2011	16	7.1%	
Types of House Purchase	2010	85	37.9%	224 (100%)
	Apartment / flat	102	45.5%	
	Condominium	20	8.9%	
	Terrace house	84	37.5%	
	Semi-D house	8	3.6%	
	Detached house / bungalow	5	2.2%	
Others	5	2.2%		



sector, 17.9% of self-employed and the lowest percentage of 14.3% in other employment sector. In terms of monthly income, the largest percentage of respondents (30.8%) were currently earning an income between RM1,501 to RM3,000 per month followed by 20.5% of respondents earned RM5,001 and above. Finally, majority of respondents (71.0%) were married, 25.4% were single and the remaining 3.6% were divorced or widowed. 37.9% of the respondents bought a house in 2010 followed by 21.0% who bought in 2016. Finally, a large number of respondents purchased an apartment/flat (45.5%) and terrace house (37.5%).

Based on the analysis of mean score, the top three factors that lead to the formation of housing bubble are demographic changes (3.9375), followed by housing market speculation (3.9196) and overvaluation by property valuers (3.8036). Other factors i.e. loosen standard of housing loans is recorded at 3.3705, followed by irrational exuberance at 3.5580 as well as negative and risky buying behaviour at 3.3661. The lowest rank which indicates the factor which has a less influence on house price rise is the technological changes which stood at 3.2232. Meanwhile, the top factors that lead to the housing bubble burst are poor performance of economic activity (3.7946), followed by high interest rate of housing loans (3.6384) and mortgage defaults by borrower (3.5580). The lowest mean score (2.9554) is recorded for the house sales by retired baby boomers which substantially lower than the range of mean score for all items. This indicate that, majority

of respondents are of the view that house sales by retired baby boomers has a less influential to the falling of a house price. The summary of mean score and standard deviation for all factors is shown in Table 2.

The aim of the study is to determine the factors that lead to the housing bubble. In order to gain a deeper understanding on this subject, it is necessary to study the response from its market participant i.e. home buyers. Therefore the purpose of the survey is to determine the home buyers' perception on the factors contribute to the formation and the bursting of the housing bubble. In terms of formation of housing bubble, factors from fundamental economic seem to dominate the influential level among all of the factors listed. This can be seen as 'speculation in housing market' is recorded at the second influential factor while the remaining two factors i.e. 'irrational exuberance' and 'negative and risky buying behaviour' is placed under the lowest rank. Not much can be concluded for house price fall as all four factors is based on fundamental economics. However, the selection of 'poor performance of economic activity' as a top factor clearly indicates that home buyers tend to see the effect of the economic condition at the larger scope as compared to the sub-factors that related to financial institution such as housing loans and mortgage defaults by the borrower. The results might be different if it were tested to different cities as it represent the home buyers' perception on the housing market.

## Conclusion

It has been suggested that the existence of bubble is due to multi factors. As this study employs the survey methodology, the study only explore the factors based on literature search and home buyers' point of view. The basic result from this study is home buyers tend to see the fundamental economic factors to influence the housing market climate. In conclusion, one should outline and group this factors in accordance to their actors in both demand and supply side to provide a comprehensive set of indicators to test the bubble. Based on the factors discussed, future studies might use several related indicators to perform an empirical analysis in identifying its association and influential level to the house price.



KLCC Park, Kuala Lumpur; Source: <http://pl.wikipedia.org>; Author: Marcin Konsek

**Table 2**

*Summary of the factors that lead to the housing bubble*

Factors of Housing Bubble Formation				Factors of Housing Bubble Burst			
	SD	Mean	Rank		SD	Mean	Rank
Demographic changes.	1.0399	3.9375	1	Poor performance of economic activity.	1.2502	3.7946	1
Housing market speculation.	1.1096	3.9196	2	High interest rate of housing loans.	1.2665	3.6384	2
Overvaluation by the property valuers.	1.1152	3.8036	3	Mortgage defaults by the borrower.	1.1310	3.5580	3
Irrational exuberance.	1.2040	3.5580	4	House sales by retired baby boomers.	1.2376	2.9554	4
Loosen standard of housing loans.	1.2955	3.3705	5				
Negative and risky buying behaviour.	1.1941	3.3661	6				
Technological changes.	1.1768	3.2232	7				

Note: The analysis is based on 5-point Likert scale ranging from 1 to 5 (1 = no influence; 2 = less influence; 3 = neutral; 4 = influence; 5 = great influence).

## References

1. Case, K.E. & Shiller, R.J. (1988). *The behaviour of home buyers in boom and post boom markets*. NBER Working Paper Series, 2748.
2. Chen, R.D., Gan, C., Hu, B. & Cohen, D.A. (2013). *An empirical analysis of house price bubble: A case study of Beijing housing market*. *Research in Applied Economics*, 5(1), 77–97.
3. Escobari, D., Damianov, D.S. & Bello, A. (2015). *A time series test to identify housing bubbles*. *Journal of Economics and Finance*, 39(1), 136–152.
4. Grover, R. & Grover, C. (2014). *Property bubbles – a transitory phenomenon*. *Journal of Property Investment & Finance*, 32(2), 208–222.
5. Grum, B. & Grum, D.K. (2012). *How the recession affects the expectations of potential acquirers of real estate right in deciding to purchase property?* *Procedia–Social and Behavioral Sciences*, 62, 232–238.
6. Haughwout, A., Lee, D., Tracy, J.S. & Van der Klaauw, W. (2011). *Real estate investors, the leverage cycle, and the housing market crisis (Staff Report No. 514): Federal Reserve Bank of New York*.
7. Holtemoller, O. & Schulz, R. (2010). *Investor rationality and house price bubbles: Berlin and the German Reunification*. *German Economic Review*, 11(4), 465–486.
8. Hou, Y. (2010). *Housing price bubbles in Beijing and Shanghai? A multi-indicator analysis*. *International Journal of Housing Markets and Analysis*, 3(1), 17–37.
9. Joebges, H., Dullien, S. & Márquez–Velázquez, A. (2015). *What causes housing bubbles? A theoretical and empirical inquiry*. Berlin: Macroeconomic Policy Institute.
10. Kohn, J. & Bryant, S.K. (2010). *Factors leading to the US housing bubble: A structural equation modeling approach*. *Research in Business and Economics Journal*, 3, 1–20.
11. Kritayanavaj, B. (2008). *Housing and real estate bubbles: Thailand's boom and bust cycle*. *Housing Finance International*, 2(23), 3–11.
12. Lai, Y., Xu, H. & Jia, J. (2009). *Study on measuring methods of real estate speculative bubble*. *Journal of Service Science and Management*, 2(1), 43–46.
13. Lind, H. (2009). *Price bubbles in housing markets: Concept, theory and indicators*. *International Journal of Housing Markets and Analysis*, 2(1), 78–90.
14. McDonald, J.F. & Stokes, H.H. (2013). *Monetary policy and the housing bubble*. *The Journal of Real Estate Finance and Economics*, 46(3), 437–451.
15. Ning, C. & Hoon, O.D. (2012). *Case studies of the effects of speculation on real estate price bubble forming: Beijing and Shanghai (2001–2010)*. Paper presented at the 18th Annual Pacific Real Estate Society Conference, Adelaide, Australia.
16. Pitros, C. (2014). *UK housing bubble case study analysis: The 'behaviour' of UK housing bubble and the affordability parameter*. Paper presented at the 21st Annual European Real Estate Society Conference, Bucharest, Romania.
17. Shiller, R.J. (2000). *Irrational Exuberance*. Princeton: Princeton University Press.
18. Stiglitz, J.E. (1990). *Symposium on bubbles*. *The Journal of Economic Perspectives*, 4(2), 13–18.
19. Thode, S.F. & Culp, R. (2013). *How to avoid another housing bubble and what to do if it happens anyway*. *Real Estate Finance*, 29(6), 7–17.
20. Tokic, D. (2005). *Is there a real estate bubble?* *Real Estate Issues*, 30(1), 1–6.
21. Triantafyllopoulos, N. & Kandyla, T. (2010). *Buyers' behaviour and the housing bubble in Greece*. Paper presented at the 17th Annual European Real Estate Society Conference, Milan, Italy.
22. Tsai, I.C. & Peng, C.W. (2011). *Bubbles in the Taiwan housing market: The determinants and effects*. *Habitat International*, 35(2), 379–390.
23. Yiu, Y.C. (2009). *Negative real interest rate and housing bubble implosion—an empirical study in Hong Kong*. *Journal of Financial Management of Property and Construction*, 14(3), 257–270.
24. Zainuddin, Z. (2010). *An empirical analysis of Malaysian housing market: Switching and non-switching models*. (Unpublished doctoral thesis), Lincoln University, Christchurch, New Zealand.

## CZYNNIKI PROWADZĄCE DO BAŃKI NA RYNKU NIERUCHOMOŚCI. BADANIE ANKIETOWE

### Streszczenie

Niniejsze badania podjęto w celu określenia czynników, które prowadzą do bańki mieszkaniowej. Na podstawie badań literaturowych zidentyfikowano siedem czynników przyczyniających się do powstania bańki cenowej na rynku mieszkaniowym i cztery czynniki powodujące jej pęknięcie. O wszystkie czynniki zapytano nabywców mieszkań. W ramach badania behawioralnego, kwestionariusz został rozesłany do 224 respondentów, którzy zakupili domy w Dolinie Kłang w okresie od 2010 do 2016 r. Dane zebrane podczas badania ankietowego zostały przeanalizowane przy użyciu pakietu statystycznego SPSS. Wyniki badania wskazują, że większość nabywców mieszkań wierzy, iż zmiany demograficzne, spekulacja na rynku mieszkaniowym i przeszacowanie nieruchomości przez rzeczoznawców majątkowych są głównymi czynnikami prowadzącymi do powstawania bańki cenowej na rynku mieszkaniowym. Tymczasem główne czynniki, które prowadzą do pęknięcia bańki cenowej na rynku mieszkaniowym są identyfikowane jako niska aktywność gospodarcza, wysokie oprocentowanie kredytów mieszkaniowych, niespłacanie hipotek przez kredytobiorców i sprzedaż domów przez emerytów urodzonych w czasie powojennego wyżu demograficznego. Artykuł dostarcza podstawowego zrozumienia czynników prowadzących do powstawania i pęknięcia bańki cenowej na rynku mieszkaniowym. Wyniki wykazały, że nabywcy domów często postrzegają podstawowe czynniki jako wpływające w największym stopniu na klimat na rynku mieszkaniowym.

### Key words

nieruchomości mieszkaniowe, bańka cenowa, pęknięcie bańki cenowej

## PRAWO

### PROJEKT ZMIAN W USTAWIE O GOSPODARCE NIERUCHOMOŚCIAMI

9 maja 2017r. rząd przyjął projekt Ustawy o zmianie ustawy o gospodarce nieruchomościami oraz niektórych innych ustaw, w którym zaproponowano przywrócenie definicji „pośrednictwa w obrocie nieruchomościami” oraz „zarządzania nieruchomościami” oraz wskazano, że pośrednikiem lub zarządcą powinna być osoba która realizuje czynności zawodowe odpłatnie, w sposób zorganizowany, ciągły i powtarzalny (tj. przedsiębiorca).

Projekt przewiduje także wprowadzenie obowiązku dołączania do każdego operatu szacunkowego, umowy o sporządzenie wyceny nieruchomości, umowy pośrednictwa oraz umowy o zarządzanie nieruchomością kopii polisy ubezpieczenia OC.

Proponowany termin wejścia w życie nowelizacji to 1 września 2017r. Prace legislacyjne są w toku.

*Źródło: Ministerstwo Infrastruktury i Budownictwa.*

Opr. W.G.

AKTUALNOŚCI