УДК [338.1:339.194](474.5)

Simanavičienė Žaneta,
PhD (Economics), Prof., Kaunas University of Technology,
Šliupas Rokas,
Msc.,Vilnius Gediminas Technical University, Lithuania

THE EFFECT OF REAL ESTATE SPECULATION ON THE GROWTH OF ECONOMICS IN LITHUANIA

Introduction

Real estate experts, reporters, politicians and even ordinary people are wondering about the possible impact of real estate bubble on the national economy and many are concerned about the possibility of repeating Asian experiences [1, c. 25]. It appears that such worries are not well founded. It must be remembered that housing situations were very different, but similarities exist with respect to financial situation, i.e., the low interest rate and abundance of liquid money.

Guttentag, Herring and Wachter have shown that there is a built-in lender myopia that is intrinsic to certain markets such as real estate, which may always be present to some degree. Financial institutions can be unwittingly caught into over-lending to real estate markets and feed a severe boom and bust cycle. The reason is that lenders underestimate their exposure to low-frequency shocks when real estate prices have been climbing steadily for sustained periods of time. The pattern of capital and rent values during a property boom and bust suggests how disaster myopia works. The cycle starts slowly with a sustained phase of powerful lending accompanied by widening asset price gains as we get close to the peak of the boom. This peak is followed by a crash in values over a much shorter period of time.

In immature markets, myopic or irrational pricing may be dominant because reliable information about aggregate market conditions is limited or missing. The phenomenon of real estate market growth and recession attracted the attention of different scholars and it is agreed that more research is needed for the dynamic changes in the market and their impact on the whole economy.

Novelty of the paper — the answer to the question what peculiarities of real estate market and slowdown may affect the economy of new open economy countries.

Scientific problem of the article is the lack of a common opinion in the economics literature what threats to the economy might cause real estate speculative bubble.

Purpose of the paper is to investigate how speculative bubbles in real estate market effects economic in countries with transition economy.

Object of the paper is the real estate market speculative bubble.

Tasks raised in the article:

1. To present a theoretical view the speculation features of real estate market.
2. To analyze related statistical data in Lithuania.

Research methods are logical and systemic analysis of research literature based on the comparative and generalization methods as well as statistical methods.

The speculative bubble's meaning and features in real estate market

Speculation is usually thought of as a demand-side phenomenon, whether demand side events do result in a bubble will depend on supply conditions and will determine whether speculation will be observed and whether price "bubbles" will form. Excessive and inappropriate regulations «in-elasticize supply» and lead to rising real estate prices. Higher prices that then drop increase defaults and adversely affect the soundness of the financial system, leading to credit crunches which then magnify the downturn. Of course many things besides regulations affect supply, notably natural constraints [2, c. 45].

According to the different main body [3, c. 176], the speculative behavior in the real estate market can be categorized into two kinds, one kind's exponent is the developers (Figure 1), who have information superiority in the real estate merchant, they know that some real estate price is higher than real value definitely, however, they are sure that there will be more people buy it at higher price, so, they purchase or hoarding and cornering this kind real estate constantly to raise the real estate's price, and expect to sale them at the price peak. The other kind uses consumer as exponent. Customer's demand can be divided in to the direct consume demand and invest demand. In the real estate market, customers' invest demand also can be categorized into long-term rent demand, shot-term invest demand and the mixed demand for acting as the occasion demands. The real estate consumer's short-term speculative demand and part mixed demand also can induce the real estate bubble.

When they do decision-making of real estate investment, this part consumers are at disadvantaged for the asymmetrical information, they can only buy real estate at high price or deceived by the falsehood flourish, which give they the naive expectation that the flourish will went on without day and then join into the troop of investing in real estate, finally accelerate the bubble's assemble.

So, speculative real estate bubble can be defined as that, it is the bubble resulted from the speculative behavior of the real estate developer and the consumer, who are

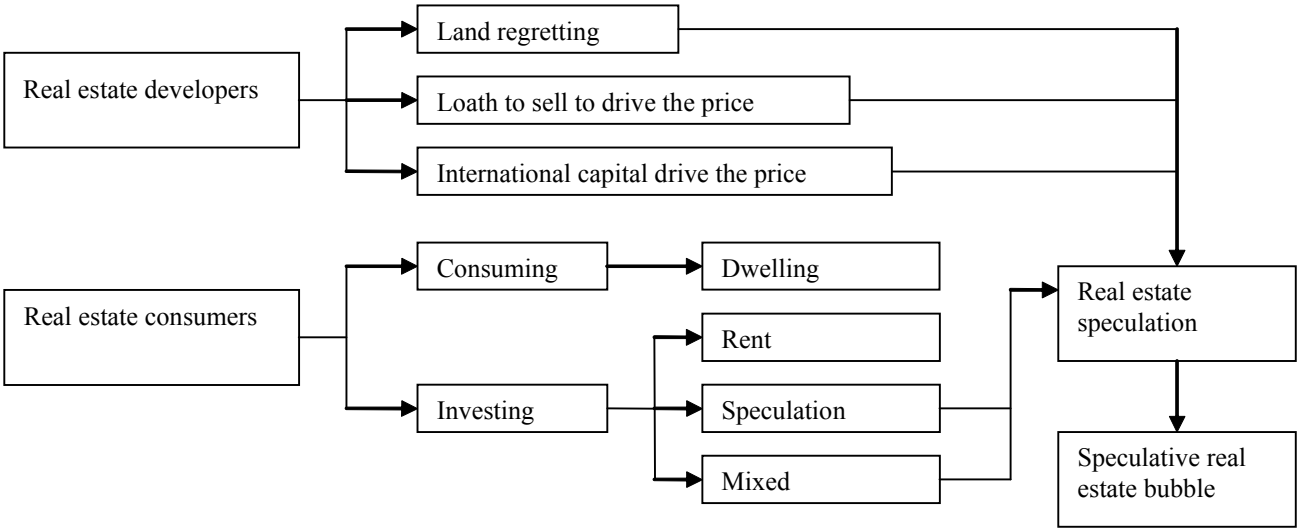

Fig. 1. The classify of the speculative real estate bubble [3, c. 182]

the two main body of real estate trade. Those speculative behaviors which induce the speculative real estate bubble have two obvious characters:

1. The invest main body's intention is definite, that is to gain the real estate business's price difference, it has no inner essential relation with the virtual economy increase.

2. The speculation main body's behavior is short-term and indefinitely after they get the real estate. Most is changed hand in 1-2 years.

For the domestic real estate industry is such an investment that returns good profits, and also because other invest channel under the overseas exchange control is not unobstructed, mass of overseas capital incurs into domestic real estate market. Under the invest of foreign capital, the domestic big and middle cities' real estate price rises so rapidly that it exceed the deserved value notably, and also beyond the limit which common civilians can afford. This condition not only brings huge press to those who really want to purchase domicile, but also lead to great market risk.

Relationship of speculative real estate bubble and economic growth rate stability in countries with transition economy

Lithuania is taken as an example of transition country due to its unique historical and financial situation. We collected the house price data from the IMF IFS database, Centre of Registers, Central Bank of Lithuania and, in some cases, statistical office. The data begins between 1998 for and ends in 2008. The hypothesis here is that by looking at the following dimensions it should be possible to present a set of sufficient conditions for a specific bubble episode:

1. The macroeconomic situation and macroeconomic policies;

2. Structural changes in the economy;

3. The capital and credit market;

4. The beliefs, expectations and plans of the actors;

— Holding period

— Beliefs about the future development of the asset price

— The rationality of the actors

5. The incentive of the individuals.

These factors combined would have drastically increased the expectation for large windfall capital gains from housing investment.

Firstly, the fall in interest rate would reduce the financial burden of interest payment on the part of the consumers, which would have led to the increase in the demand for home mortgages. More households would have purchased homes through mortgage financing, which would also have pushed the demand for housing and eventually raise the price of housing. In general a fall in interest rate tends to make investors prefer real estate to financial asset because the former yields relatively higher rate of return than the latter. And also theoretically if interest falls, the present value of the future income streams increases. Asset value is computed simply by dividing future income by interest rate. Therefore, if interest rate falls, the real estate value goes up, other things being equal, and again it stimulates speculative housing demand and pushes housing price up [4, c. 28].

Another factor that might have caused the housing price inflation is a record rise in both home mortgage and personal lending. Personal borrowing became easy due to low rate of interest. Besides those who borrowed money were upper-middle class households and credit worthy. Accordingly a large amount of liquid money has flown into the housing market. Clearly credit availability helped increase housing demand and thus, raise the housing price as much. Furthermore, various financial and tax incentives were provided for ordinary investors alike to invest money into real estate. In particular home buyers were given incentives to write off interest payments from income taxes.

Table 1

Determinants of Lithuanian housing demand: 1998 to 2008

[5, c. 2]

PERIOD	REAL ESTATE PRICES			SUPPLY		MACRO		REAL INTEREST		TAX RATES			CREDIT		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Real 1-2 family	Real multi family	Real Total	Urban housing supply	Total housing supply	Real GDP	Wages	Consumer Prices	Producer Prices	Unemp	Money market rate	Fgn. cur. money market rate	Bank credit private sector	Total Credit	Credit/ GDP
'98-'01	3,0	42,5	12,2	1,4	1,4	9,6	7,3	3,1	14,7	6,1	-2,8	-1,5	17,4	23,4	2,2
'01-'05	56,2	71,0	57,7	2,3	1,9	39,8	19,5	3,0	19,4	-4,3	-1,4	-1,4	408,7	307,0	30,3
'05-'08	262,5	286,4	233,9	3,8	3,2	31,4	84,5	23,0	44,5	-2,5	2,0	0,3	721,7	528,6	41,8

These highly stimulative policy packages have clearly resulted in housing price inflation.

Table 1 shows the basic annual data from 1998 to 2008. It is tempting, but not practical, to carry out a regression analysis of the influence of these 17 factors on real housing prices. As is evident from the table, we have a richness of variables, a deficiency of observations, and a potentially serious simultaneity bias problem as well.

According to the experts of National Development Institute, home prices in Vilnius are just 30% lower than prices in Berlin and Brussels. However, wage in Vilnius is almost 8 times lower, the density of population is 5 — 6 times lower and population is decreasing if comparing with these countries. All these analyzed indicators show that the increase of home prices is unfounded; therefore it is possible to state that it is one of the features which indicate the price bubble in real estate market.

We found it expedient, instead, to group and analyze the data using the key periods of the Lithuanian house price cycle:

the initial period — 1998 to 2001;

the fundamental growth — 2001 to 2005;

the boom — 2005 to 2008.

The view that both the supply and demand for housing interact to determine an equilibrium level for real house prices should not be taken to imply that house prices are necessarily stable. In many countries it is frequently observed that house prices are significantly more volatile than would be predicted by the variation in the main determinants of supply and demand alone. Moreover, the structure of housing finance, spatial effects and tax treatment of owner occupancy may significantly affect house price dynamics in the long term. The model to be estimated is as follows:

$$p^{house} = f(Y^{+}, r^{-}, WE^{+}, D^{+/-}, e^{+}, X, C(P^{L}, W, M)^{-}) \quad (1)$$

On the demand side:

Y — household income;

r — the real rate on housing loans;

WE — financial wealth;

D — demographic and labour market factors;

e — the expected rate of return on housing;

X — and a vector of other demand shifters;

L — location;

A — age and state o f housing.

On the supply for housing side:

C — the real costs of construction;

PL — including the price of land;

W — wages of construction workers;

M — a material costs.

According to empirical literature [6, c. 41; 7, c. 173], the model is based on both theories of excess demand and cost push in real estate market. Assuming that the housing market is in equilibrium, with demand equal to supply at all times.

It also is assumed that, in the model, housing demand has two components: «normal» demand and «speculative» demand. Normal demand is assumed to depend on income and yield rate of alternative investment. As income increases and alternative investment yield falls, the normal consumer would allocate increased income and the proceeds of the sales of alternative investment to buy the house to live in. The normal consumer is a risk averter and would buy the house on the basis of such determinants as income increase and alternative investment yield. On the other hand, the speculative consumer is assumed to be a risk taker and make up his or her decision to buy the house on the basis of such high risk determinant as unknown increase in housing price [8, c. 166].

These results provide support for the view that the development of housing markets and housing finance institutions has had a major impact on the dynamics of house prices in Lithuania.

After analysis of long-term co-integrating relationship between real house prices and the selected explanatory variables we constructed polynomial function of real estate prices:

$$p^{house} = 3.41(\text{housing credit}) + 1.80(\text{labor force}) + 0.91(\text{population}) + 0.27(\text{real wage}) + 0.25(\text{GDP per capita}) - 0.02(\text{real interest rates}) - 0.07(\text{unemployment}) - 0.12(\text{stock market index}) - 1.82 \quad (2)$$

Table 2

Long-term relationships dependent variables: change in Lithuanian biggest cities real estate prices

	Lithuania	Vilnius city (new)	Vilnius city (old)	Kaunas city	Klaipeda city	Siauliai city	Panevezys city
Credit for housing	**3,41**	2,33	3,10	3,63	4,18	4,47	3,47
Labour force market	**1,80**	0,70	1,01	1,85	2,71	2,15	-1,10
Population	**0,91**	2,29	2,80	0,80	-2,17	0,90	1,05
Real wage index	**0,27**	0,17	0,23	0,24	0,31	0,30	0,26
GDP (PPP) per capita	**0,25**	0,19	0,26	0,27	0,30	0,30	0,22
Real interest rates	**-0,02**	0,01	0,00	-0,01	0,00	-0,04	-0,02
Unemployment rate	**-0,07**	-0,02	-0,08	-0,06	-0,08	0,05	-0,03
OMX stock market index	**-0,12**	-0,09	-0,12	-0,17	-0,16	-0,24	-0,20
ECT	**-1,82**	0,41	0,58	0,01	0,09	-0,53	0,12
No, obs,	**45**	45	45	45	45	45	45
R^2	**0,89**	0,87	0,88	0,87	0,88	0,83	0,79

Table 3

Long-term relationships dependent variables: change in Lithuanian districts real estate prices

	Lithuania	Vilnius district	Kaunas district	Klaipeda district	Siauliai district	Panevezys district
Credit for housing	**3,41**	4,26	5,54	5,73	3,72	2,92
Labor force market	**1,80**	1,13	2,39	2,89	1,36	-1,66
Population	**0,91**	6,70	1,46	2,30	-2,00	-0,79
Real wage index	**0,27**	0,30	0,35	0,39	0,25	0,22
GDP (PPP) per capita	**0,25**	0,26	0,33	0,38	0,17	0,12
Real interest rates	**-0,02**	-0,01	-0,02	-0,02	-0,02	-0,01
Unemployment rate	**-0,07**	-0,09	-0,06	-0,10	-0,01	-0,05
OMX stock market index	**-0,12**	-0,22	-0,31	-0,27	-0,22	-0,18
ECT	**-1,82**	-1,10	-1,22	-1,14	-0,07	0,29
No, obs,	**45**	45	45	45	45	45
R^2	**0,89**	0,84	0,82	0,87	0,79	0,74

Credit measured by changes in the ratio of private sector credit to GDP has a strongest positive relationship to house prices. GDP per capita is highly significant and has the expected positive sign in virtually all the regressions, indicating that changes in income are strongly positively related to changes in house prices. Real interest rate coefficients in most cases have the expected negative sign and are statistically significant, indicating that falling interest rates are associated with rising real house prices.

The coefficient estimates for population, labor force and unemployment for the Lithuania are all significant and have the expected second biggest relationships. One can notice that the size of the estimated coefficients for the population is much higher in Vilnius than in other biggest Lithuanian cities.

Real wages, used as a broad proxy for housing quality, are positively correlated with real house prices. To the extent that real wages, as an important component of construction costs, adequately reflect improvements in housing quality, these results support the view that better housing quality had a stronger impact on real estate prices in the Lithuania.

During the period of 38 quarters between the fourth quarter of 1998 and the first quarter of 2008, the credit measured by changes in the ratio of private sector credit to GDP has a strongest positive relationship to house prices except Vilnius district where population determinant has the biggest impact to price inflation. During the measured period a lot of people came to live in Vilnius from other districts.

Overly optimistic expectations about future house price rises are not explicitly captured in the above analysis, but inevitably played a role during the upturn, while negative perceptions have exacerbated the downturn. We showed house prices in Lithuania have been driven by rapidly rising disposable incomes related to steep GDP and wage growth, declining tax rates; and a fall in after-ax interest rates during the first half of the decade; favorable tax treatment of residential property was also an important driver of house price inflation. We made and hypothesis what there was a speculative price bubble.

The share of an independent variable in influencing dependent variable within a certain period of time can be measured with the formula below:

$$W_i = \sum_{t=1}^{T} b_i X_{it} / \sum_{t=1}^{T} \hat{Y}_t \qquad (3)$$

Table 4

Degree of contribution to real estate price inflation in Lithuanian cities, (%)

	Lithuania	Vilnius city (new)	Vilnius city (old)	Kaunas city	Klaipeda city	Siauliai city	Panevezys city
I. Contribution of each variable	100	100	100	100	100	100	100
Real wages	-14,8	-14,9	-18,0	-4,8	1,8	-9,5	19,8
Hypothec credit market	28,7	19,0	11,5	-7,2	-35,3	-14,4	-20,6
OMXV index	3,4	4,0	-6,3	-4,8	-10,2	-10,5	17,7
Expected housing price	62,8	31,9	80,0	68,0	84,2	63,1	73,5
Real construction cost	28,0	51,5	28,4	48,9	49,1	71,5	9,5
Real estate stock	-8,1	8,5	4,5	-0,1	10,4	-0,2	0,1
II. Ratio of speculative demand to normal demand	1,7	0,5	4,0	2,1	5,3	1,7	2,8

Where:

W_i: share of Xi in the value of estimated Y at time t

b_i : regression coefficient of Xi, a variable influencing housing price inflation

X_{it} : Xi at time t

t : 1,2,…T

$\hat{Y}_t$: estimated value of the housing price at time t

This method of estimating the impact of independent variables has the advantage, compared to elasticities, β coefficients and other measures, of making allowance for the variation of independent variables themselves and showing different impacts on the dependent variables in different time periods.

Interestingly, the percentage share of speculative demand in housing price spiral is very high. The share of expected housing price which represents speculative demand is much more powerful:

• Construction cost contributes significantly to housing price hike accounting for 28% and speculation 62% for Lithuania, as a whole.

• In order to investigate more precisely the relative weight of speculative demand variable, the share of the speculative demand is divided by that of «normal» demand.

• The ratio of speculative demand (expected housing price) to normal demand (GDP and stock yield) for Lithuania is 1.7.

• Biggest speculative demand were in Klaipeda and Panevezys cities and lowest speculative demand — in Vilnius new constructions dwellings.

• Construction cost contributes had the biggest housing price hike Siauliai and Vilnius (new construction).

The share of expected housing price which represents speculative demand is much more powerful in Vilnius district, real estate supply seems to be at the lowest scale. The lowest speculative impact on real estate demand was measured in Siauliai district.

There are several ways of approaching estimating bubbles. However, the followings are the most often used model applied to real estate price — long-run equilibrium price approach. This approach can be summarized:

$$B_t = \Delta P_t - \Delta GDP_t \qquad (4)$$

$$B(\%)_t = \frac{B_t}{\Delta P_t} = \%\ share\ of\ B_t \qquad (5)$$

Where B_t : amount of bubble at time t

ΔB_t : the rate of change in actual price

ΔGDP_t : the rate of change in GDP

t : 1,2,…T

The indicators presented below are based on factors discussed in the literature.

The estimates of housing price bubble according to the fundamental market value are summarized in Table 6. In Lithuania, the bubble's share in the price rose from 46% in the 1rd quarter of 2004, 68% in the 1th quarter of 2007 to as much as 58% in the 1st quarter of 2008. In Vilnius (lowest speculative share), on the other hand, the bubble's share rose from 29% in the 1rd quarter of 2005, 52% in the 2th quarter of 2006 to 32% in the 1st quater of 2008. Finally, in Panevezys, it rose from -58% in the 1rd quarter of 2004, 82% in the 1th quarter of 2007 to 73% in the 1st quarter of 2008.

Finally, the estimates of the bubble are shown in Table 6. The average ratio are 46% (Vilnius), 76% Kaunas, Klaipeda), 68% (Siauliai, Panevezys). The list presented below should however be seen more as an hypothesis than as something rather final.

Impact of speculative bubble on countries whole economies

Guttentag, Herring and Wachter have shown that there is a built-in lender myopia that is intrinsic to certain markets such as real estate, which may always be present to some degree. Financial institutions can be unwittingly

Table 5

Degree of contribution to real estate price inflation in Lithuanian districts, (%)

	Lithuania	Vilnius district	Kaunas district	Klaipeda district	Siauliai district	Panevezys district
I. Contribution of each variable	100	100	100	100	100	100
Real wages	-14,8	42,3	-29,0	-17,1	-13,9	-17,7
Hypothec credit market	28,7	-28,4	17,2	33,9	-2,6	10,1
OMXV index	3,4	-3,7	-11,0	-4,2	-14,7	-18,3
Expected housing price	62,8	56,6	46,9	43,0	30,2	45,1
Real construction cost	28,0	49,1	75,9	45,2	100,2	80,5
Real estate stock	-8,1	-15,8	0,0	-0,6	0,8	0,3
II. Ratio of speculative demand to normal demand	1,7	1,3	0,9	0,8	0,4	0,8

Table 6

Estimate of Bubble in the Variation of Housing Price by the Long-run Equilibrium Approach in main cities of Lithuania

	Lithuania	Vilnius city (new)	Vilnius city (old)	Kaunas city	Klaipeda city	Siauliai city	Panevezys city
2004K1	0,465	-0,108	0,289	0,357	0,664	-0,249	-0,587
2005K1	0,604	-0,287	0,517	0,601	0,689	0,648	0,663
2006K1	0,661	0,198	0,524	0,637	0,735	0,695	0,722
2007K1	0,680	0,291	0,470	0,682	0,748	0,788	0,822
2008K1	0,584	0,059	0,326	0,557	0,640	0,697	0,731

Table 7

Estimate of Bubble in the Variation of Housing Price by the Long-run Equilibrium Approach in main districts of Lithuania

	Lithuania	Vilnius district	Kaunas district	Klaipeda district	Siauliai district	Panevezys district
2004K1	0,465	-4,093	0,099	0,498	-3,555	1,930
2005K1	0,604	0,255	0,539	0,658	0,040	0,081
2006K1	0,661	0,488	0,644	0,725	0,581	0,490
2007K1	0,680	0,503	0,764	0,757	0,672	0,691
2008K1	0,584	0,466	0,720	0,757	0,650	0,701

caught into over-lending to real estate markets and feed a severe boom and bust cycle. The reason is that lenders underestimate their exposure to low-frequency shocks when real estate prices have been climbing steadily for sustained periods of time [9, c. 12]. The pattern of capital and rent values during a property boom and bust suggests how disaster myopia works itself into a long boom and sharp bust cycle. The cycle starts slowly with a sustained phase of powerful lending accompanied by widening asset price gains as we get close to the peak of the boom. This peak is followed by a crash in values over a much shorter period of time ending with substantial losses for developers, lenders and investors in the market before the crash.

How does disaster myopia arise? A lender will decide to allocate a significant share of its portfolio to an activity like real estate according to three main criteria. The expected return to this activity is higher compared with other lending activities for a given cost of funds. The default premium for that activity may also be considered low. The portfolio is perceived as good for risk diversification because the covariance of the real estate portfolio performance with other activities is judged low.

Much has been written about the causes of the real

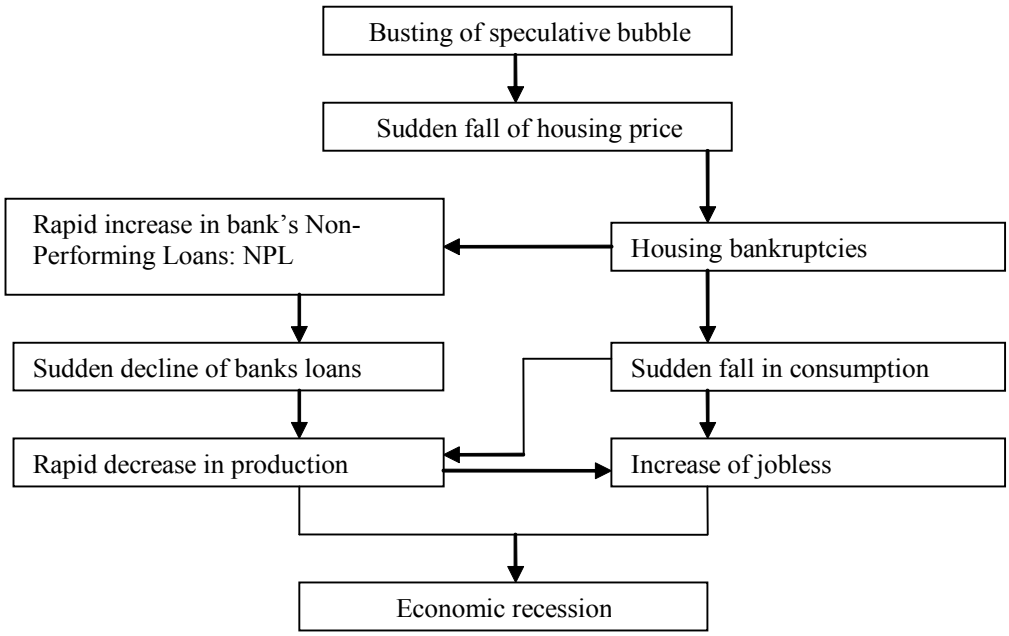

Fig. 2. Impact of housing price bubble in the national economy (Krugman, 1998)

estate crisis in general There appears to be a consensus that the crisis was caused by a combination of structural problems of the economies such as inadequate regulation of the financial institutions and the intrinsic instability in international flow of capital prone to panic rather than mismanagement of monetary and fiscal policies.

Among the many explanations is the hypothesis emphasizing the role of the boom and the bust of real estate prices. For example, Krugman wrote, «..in all of the afflicted countries there was a cycle in the asset markets that preceded the currency crisis.. Asian story is really about a bubble in and subsequent collapse of asset values in general, with the currency crises more a symptom than a cause of this underlying real malady.»[10, c. 3] also points out that «Non-performing real estate asset loans, overvalued real estate collateral and business loans improperly defected into real estate investments and contributing directly to banking failures are a familiar story in quite a few countries.» He described the sequence of causality in Thailand as «Real estate crisis=>banking crisis=> currency crisis=> contraction» [10, c.4].

The mechanism of so-called asset deflation implied by the above line of reasoning can be summarized by figure 2. Falling real estate prices lead to a reduction in consumption through negative wealth effect, to an increase in non-performing loans and hence a decrease in supply of new credit by financial institutions, which results in a reduction in investment by the firms. Investment decreases also because the drop in real estate prices impairs the firms' capacity to borrow. Contraction of consumption and investment leads to a recession. And the vicious cycle begins.

Once bubble busts, the price of real estate goes down dramatically and in particular, the value of mortgage collateral falls to the extent that it becomes well below the amount of loans outstanding. If the loan to value ratio is high, there is no way to recover the loan and consequently, many financial institutions would go bankrupt. The incidences of personal bankruptcy would then be on the rise, leading to substantial reduction of consumption and production as well, and eventually to an increase in unemployment. Such a vicious circle would continue for a long time and if so, the economy would suffer from depression.

Conclusions

1. The current recession notwithstanding, Lithuania's real estate performance was unbalanced and collapsed in 2008. The real estate boom-bust cycle was driven by massive capital inflows under the currency board, which fuelled credit and speculative real estate boom. Other factors were rapid income growth, increasingly negative real interest rates, and on the part both Scandinavian lenders and Lithuanian borrowers an overly optimistic assessment of the economic outlook.

2. A tightening of lending conditions led to steep decline in construction and real estate related activities, which has spread to other sectors. These domestic factors were further exacerbated by the marked deterioration of the external environment due to the onset of the global economic and financial crisis, bringing Lithuania into a deep recession.

3. However, the most significant finding is that the speculative demand is far more important than normal real estate demand. In fact, the contribution of speculative demand to the determination of housing price is much more important than that of normal housing demand. The

surge of speculative housing demand since 2000 has been largely attributable to the trend of declining interest rate, rapidly increasing money supply. Second, contrary to what many might have thought, the seriousness of housing bubble in Lithuania less apparent than it was in Asia because of differences in basic market conditions.

4. These findings have interesting policy implications. First, the government should not repeat the policy conducive to speculation including the allowance of the sale of pre-sale contract. Second, the capital gains tax is of course needed not only for government's tax receipts but also for better income distribution; but it is not a suitable way of discouraging speculative activities. The best way of fighting speculation and stabilizing housing price is to minimize the excess demand through the sustained increase of housing production on one hand and well pre-planned land supply through better regional development planning on the other.

References

1. **Beka, J.** (2007). Real Estate Prices, Credit Growth and Implications for Monetary Policy. BIATEC, 25. 2. **Girdzijauskas, S., & Streimikiene, D.** (2009). Application of Logistic Models for Stock Market Bubbles Analysis. Journal of Business Economics and Management, 10(1), 45-51. 3. **Shiller, R., & Case, K.** (2003). Irrational Exuberance. 174-198. 4. **Wheaton, W.** (1999). Real Estate «Cycles»: Some Fundamentals. 24-76. 5. **Statistical** Office of Lithuania (2010). http://www.stat.gov.lt/lt/. 6. **Girouard, N., Kennedy, M. & André, C.** (2006). Has the rise in debt made households more vulnerable? OECD Economics Department Working Papers(535), 33-70. 7. **Grenadier, S.R.** (1995). An Equilibrium Analysis of Real Estate. 169-189. 8. **Galinienė, B., Marčinskas, A., & Malevskienė, S.** (2006). The cycles of real estate market in the Baltic Countries. Technological and economic development of economy(12), 161-167. 9. **Hegerty, S.W.** (2009). Is PPP Sensitive to Time-Varying Trade Weights in Constructing Real Effective Exchange Rates? Quarterly Review of Economics and Finance(49), 10-15. 10. **Krugman, P.** (1998). Bubble, boom, crash: theoretical notes on Asia's crisis, mimeo. http://web.mit.edu/krugman/www/.

Žaneta Simanavičienė, Rokas Šliupas. The effect of real estate speculation on the growth of economics in Lithuania

European countries with transition economies are suffering from unemployment and fluctuating prices, now being plagued by rampant real estate bubble. One of the major social and economic problems in recent years has been the sustained real estate price spiral. The excessively high real estate price means worsening affordability, mortgage payment defaults and impacts the economy's growth. Present real estate boom is an archfiend wielding terrible power, capable of blowing out the flickering signs of a hopeful economic recovery. It is a common belief that the presence of bubbles in real estate price did impact on the economy and usually caused by speculative activities. Countries, wishing to reduce recession or prevent financial crisis, have to monitor and supervise the real estate market.

This paper is designed to evaluate the contribution of speculative activities to real estate price hike. An empirical model is presented that allows for decomposition of house price appreciation into that driven by economic and demographic forces and that resulting from speculative demand. Lithuania is taken as an example of transition country due to its unique historical and financial situation. Main conclusion is that slowdown of accumulation in real estate market and slowed down growth in construction sector leads to real estate market recession as well as to economic slowdown.

Key words: real estate speculation, real estate price bubble, real estate market crisis.

Симанавічене Ж., Шлюпас Р. Ефект спекуляції нерухомістю на зростання економіки в Литві

Європейські країни з перехідними економіками страждають від безробіття та коливань цін на нерухоме майно. Однією з головних соціальних і економічних проблем останніми роками була спіраль цін нерухомого майна. Надмірно висока ціна на нерухоме майно передбачає погіршення купівельної спроможності та впливає на зростання економіки. Стаття присвячена оцінюванню внеску спекулятивних дій ціни нерухомого майна. Литва розглядається як приклад країни з перехідною економікою.

Ключові слова: спекуляції нерухомим майном, міхур ціни нерухомого майна, криза ринку нерухомого майна.

Симанавичене Ж., Шлюпас Р. Эффект спекуляции недвижимостью на рост экономики в Литве

Европейские страны с экономиками перехода страдают от безработицы и колебаний цен на недвижимое имущество. Одной из главных социальных и экономических проблем в последние годы была спираль цен недвижимого имущества. Чрезмерно непомерная цена недвижимого имущества подразумевает ухудшение покупательной способности и воздействует на рост экономики. Статья посвящена оценке вклада спекулятивных действий цены недвижимого имущества. Литва рассматривается как пример страны с переходной экономикой.

Ключевые слова: спекуляции недвижимым имуществом, пузырь цены недвижимого имущества, кризис рынка недвижимого имущества.

Received by the editors: 23.10.2010
and final form in 01.12.2010