

# Housing market in Baltic countries: business as usual?

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# The question is -

- What is behind the movements in housing market?



# The Agenda

- The background
- Housing market situation
- The financial markets and housing
- Results of regression analysis
- Conclusions

# Three countries with declining population

(Eurostat)

	2012	2013	2014	2015	2016
<b>EU (27 )</b>	499 784 361	500 904 699	502 727 059	504 279 004	506 093 761
<b>Estonia</b>	1 325 217	1 320 174	1 315 819	1 314 870	1 315 944
<b>Latvia</b>	2 044 813	2 023 825	2 001 468	1 986 096	1 968 957
<b>Lithuania</b>	3 003 641	2 971 905	2 943 472	2 921 262	2 888 558



# The Population

- EU 28 (at the beginning of 2016) 510 million persons
- The greatest population number was recorded in Germany, France, United Kingdom and Italy or 54 % of the total EU population.
- Population decline was recorded in 11 EU countries. **The sharpest drop** was observed in Lithuania (11.3 persons per 1 000 inhabitants) and Latvia (8.7)
- **Estonia's** net migration was **positive** in 2016

# The Population density/ Persons per km<sup>2</sup>

*(Eurostat)*

	<b>EU 28</b>	<b>Estonia</b>	<b>Latvia</b>	<b>Lithuania</b>
<b>2015</b>	117	30,3	31,8	46,4

# Key Indicators /The background

*(Statistics Estonia, Latvia, Lithuania)*

	<b>Population</b>	<b>GDP Growth 2016</b>	<b>Average monthly wage EUR</b>	<b>Unemployment rate</b>
<b>Estonia</b>	<b>1 315 635</b> 1.01.2017	<b>1,6</b> Eurostat	<b>1182</b> 2016 IV	<b>5,6 %</b> 2017 I
<b>Latvia</b>	<b>1 969 000</b> 1.01.2016	<b>2,0</b> Eurostat	<b>859</b> 2016	<b>9,7 %</b> 2017 Eurostat
<b>Lithuania</b>	<b>2,827,947</b> 2017	<b>2,3</b> Eurostat	<b>822,8</b>	<b>8,1%</b> 2017 Eurostat

# Macroeconomic development

- **Estonia** Economic growth has been boosted by domestic demand, mostly by household consumption. Corporate investment has been in decline for four years. *According to Statistics Estonia, the GDP of Estonia increased 4.4% in the 1st quarter of 2017 compared to the 1st quarter of the previous year*
- **Latvia** Construction and investment stagnation in Latvia on account of slow absorption of EU funding contributed negatively to GDP growth. 2017 GDP has grown by 1.6 % over the I quarter and by 4.0 % over the year
- **Lithuania** According to the flash estimate of Statistics Lithuania, in the first quarter of 2017 the country's real GDP grew by 4.1 per cent

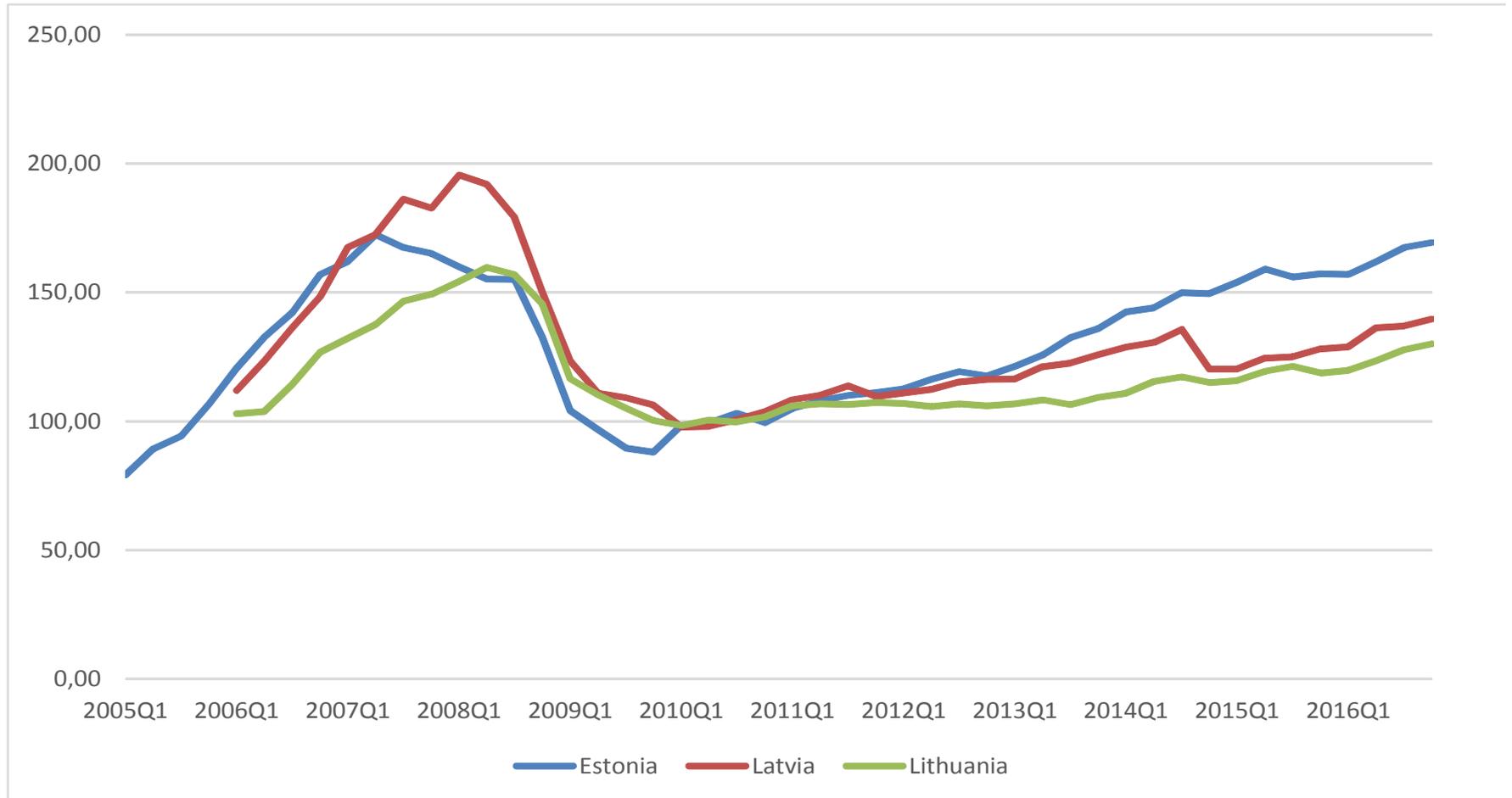
# Housing market

- The Estonian, Latvian and Lithuanian real estate markets emerged early in the 1990s with the implementation of ownership reform, when land received private owners
- Early in the 1990s the real estate markets of the Baltic countries were relatively passive and the price levels were low

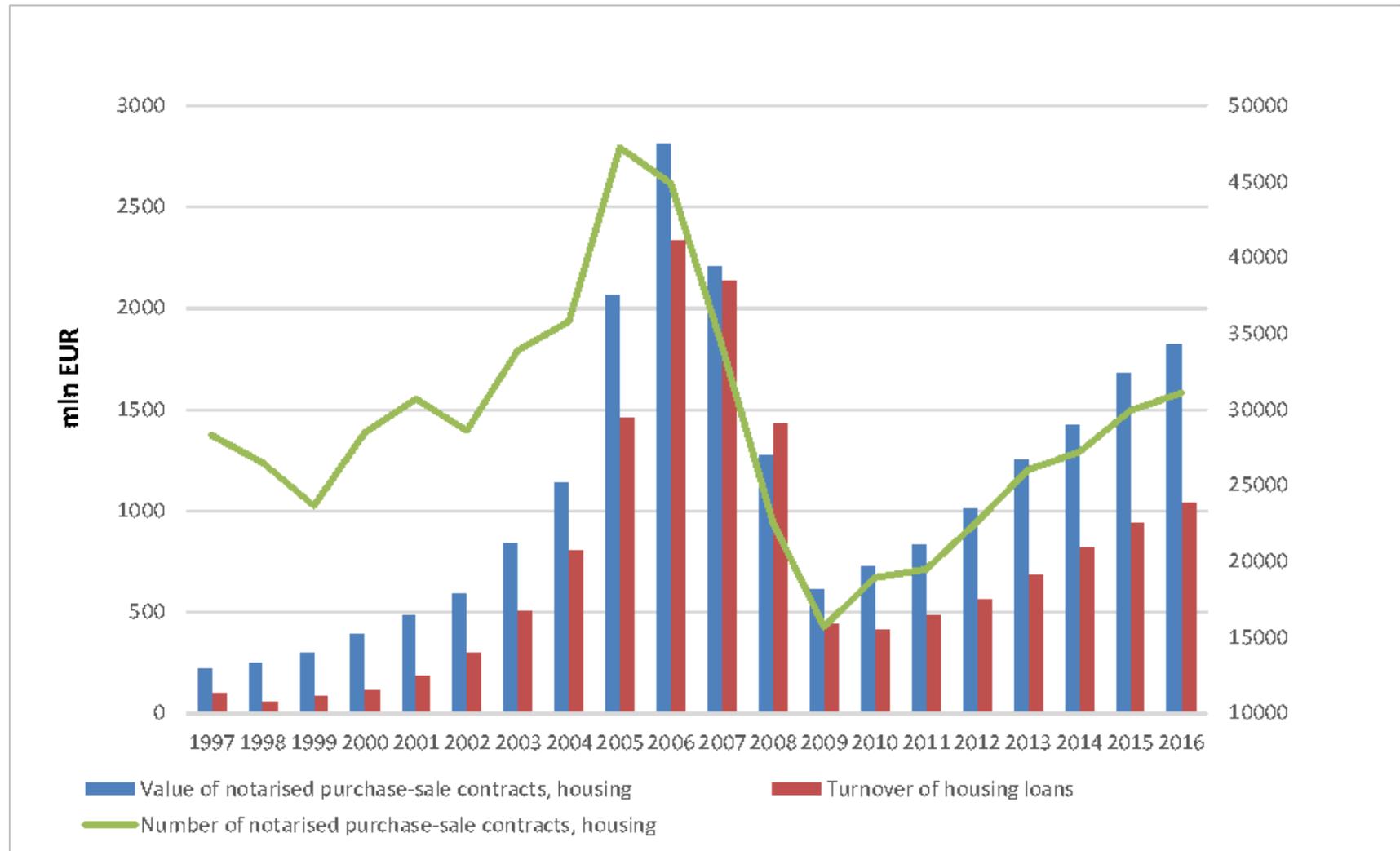
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# House price index 2005-2016,

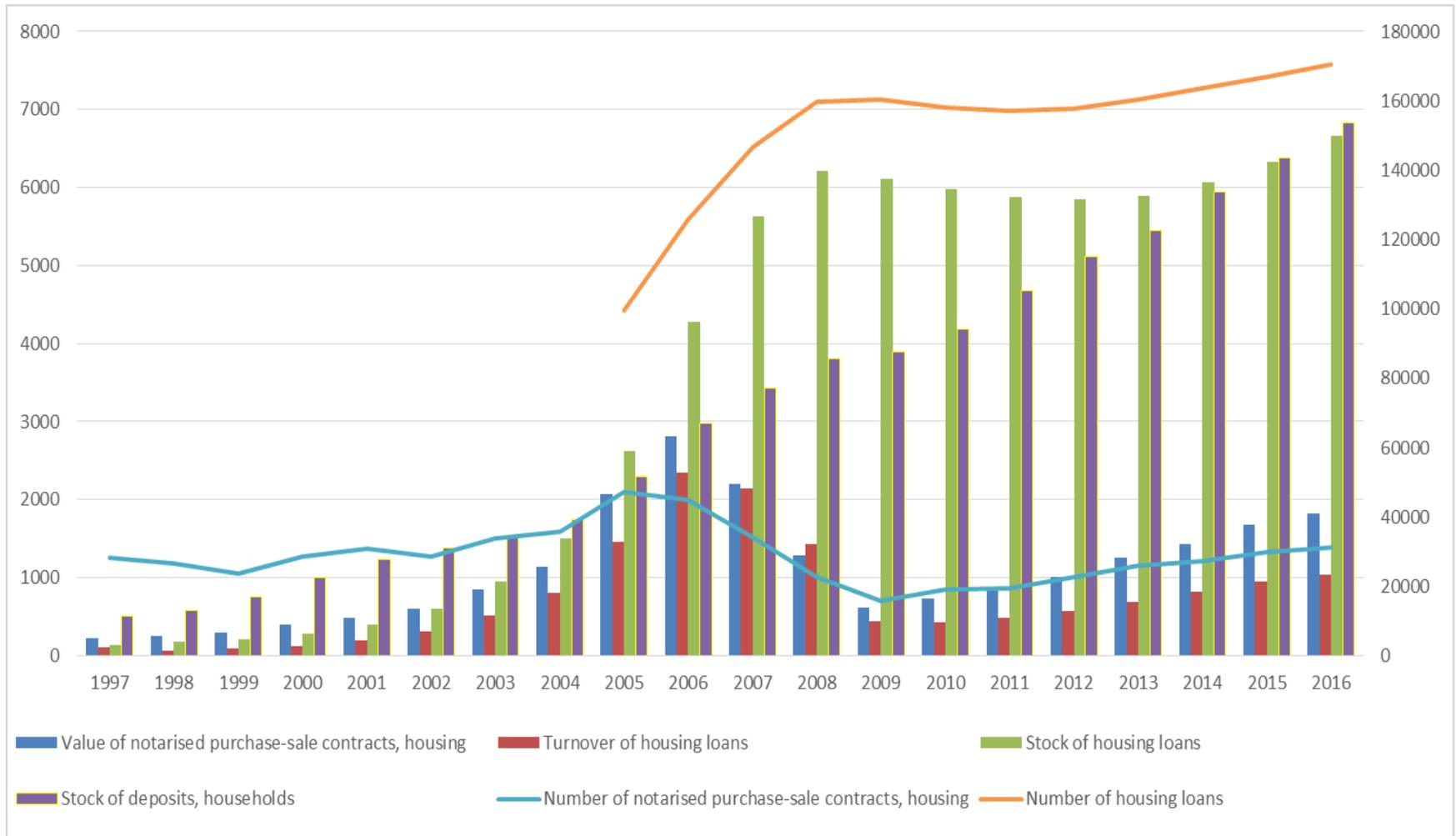
*Eurostat (2010 = 100)*



# Estonia – housing and housing loans



# If we add some more information



# Latvian housing market

- The housing bubble burst in 2009-2010
- Immigration Law (July 1, 2010) – possibility for foreigners to get a five-year residence permit in Latvia if they buy residential real estate. In September 2014, Immigration Law amendments increased the threshold for obtaining a residence permit
- Recovery of the market activity started at the beginning of 2015
- The national support programme for house purchase for new families facilitated activity in the real estate market. *The amount of mortgage loans granted under the support programme accounts for approximately one third of all loans for house purchases*

# Housing market in Lithuania

- There was a housing boom 2003- 2006
- The prices started to decline in 2008, after the global credit crunch 2008
- Housing market recovery started in 2013 and the prices continue to rise in 2016, 2017
- As was the case in the other two Baltic countries, which switched their national currencies to the euro in previous years, the adoption of the euro had no marked impact on home prices in Lithuania as it was more of a psychological factor.

# Bank of Lithuania

- In 2015, the Bank of Lithuania launched a regular survey of real estate market participants
- The Bank of Lithuania has also started collecting information reflecting expert opinion of well-informed real estate market participants about the development of this market.
- Starting from the beginning of 2016, direct participants, such as real estate developers and realtors, appraisers, managers, banks, etc., are invited, on a quarterly basis, to fill in a questionnaire about the situation in the Lithuanian real estate market at present and in the near future

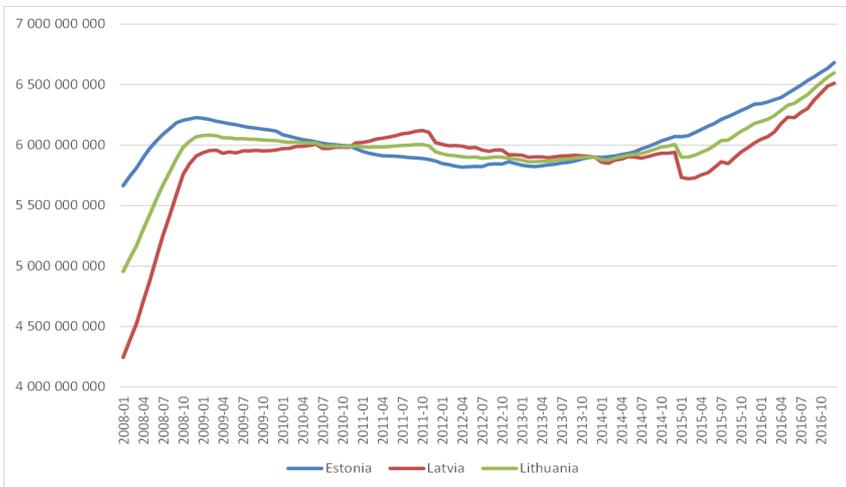
# There is always a link between credit and house prices

Duca, Muellbauer, Murphy, (2012)

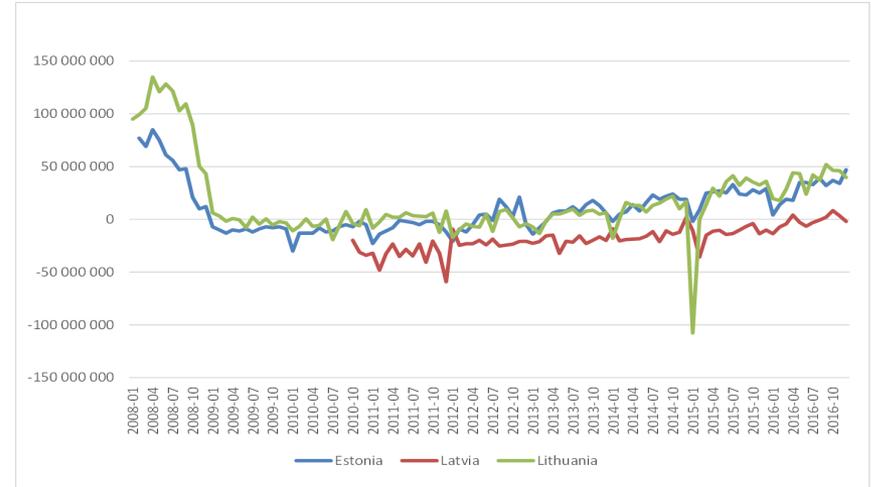
*„Our findings indicate that swings in credit standards played a major, if not the major, role in driving the recent boom and bust in US house prices“*

# Housing loans 2008 -2016, (ECB)

## Stock of housing loans



## Flow of housing loans



# 'Financial Accelerator'

- A small change in financial markets can produce a large change in economic conditions

*(Bernanke, Gertler, Gilchrist, 1989)*

- Financial cycles have larger amplitude than real economy cycles
- Housing issues and housing price stability has not been the target for Central Banks

# Igan et al. ( 2009), Three Cycles: Housing, Credit, and Real Activity

- **Over the short to medium term**, the lead-lag relationships between house price, credit and real activity cycles tend to vary across countries, suggesting that the financial accelerator mechanisms differ
- **Over the long term**, house prices lead credit and real activity in all countries
- **Country cycles in house prices**, credit and real activity are largely driven by common factors, and the role of such factors appears to have increased over time, possibly owing to growing financial integration

# Ćorić, 2011

- Existing empirical literature is still unable to provide robust assessments of the size and economic relevance of the financial accelerator effect

# The case of Estonia

The econometric model that was constructed in the housing boom peak time in 2007, by using 8 different economic indicators for describing their influence to the price of a 2-room apartment in Tallinn between 2000-2006, shows that only 2 of them – money supply and interest rate – were significant indicators to price changes of the housing market in Estonia  
*(Kolbre and Kallakmaa 2007)*

## **What kind of variables have had the most significant influence to the prices of 2-rooms apartments in Tallinn 2000-2006**

- From demand side (average wage, interest rate of housing loans, stock of housing loans)
- From supply side (construction prices, number of issued certificate of occupancy, interest rate of loans given to real estate sector)
- General economic situation describing variables as GDP and money supply M2
- The model was estimated using ordinary least squares

## Results (2007)

- $P = 2227.218 + 0.261978 M2 - 464.9836 r$
- where
- P is average purchase –sale price of 2-room apartments  
EEK/m<sup>2</sup>
- M2 - money supply
- r – interest rate of housing loans
- The fast increase of apartment prices was mostly influenced by money supply M2, which is tightly connected with bank loans. The effect of increase of money supply was bigger than the impact of housing loan interest rate increase since 2005

# What kind of variables have had the most significant influence to the average prices of apartments in Estonia 2003-2016 ?

- From demand side (average wages, interest rate of housing loans, private deposits, stock of housing loans)
- From supply side (construction price index, number of issued certificate of occupancy)
- General economic situation describing variable GDP

# Results (2017)

$$\text{PRICE} = -764,09 + 7,87\text{CPI} + 0,27 \text{ CO}$$

või

Where:

- PRICE is average purchase –sale price of apartments in Estonia EUR/m<sup>2</sup>
- CPI is construction price index (apartment building index)
- CO is number of issued certificate of occupancy

# Discussion

Tight connection with Nordic financial authorities

Funding of loans:

Previously - from parent financial institutions

Today – mostly from deposits

Rapid growth of real estate prices in Sweden

Possible increase of funding costs

# Conclusions (1)

- Homeownership rate in all three countries is high and housing is a critical issue for households and also the whole economy
- The housing boom was mostly driven by large credit supply and favourable loan conditions
- The housing loan market is growing again
- Despite of declining population the housing prices are rising

## Conclusions (2)

- Regression analysis (2017) for Estonian market shows that average price of apartment is mostly driven from supply side factors as constructions activity
- More attention is paid also by the Central Banks to real estate and mortgage market issues
- It is important to prevent the new housing bubble
- This study is work in progress and there is still need for future investigation

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# Thank you !

