# The effect of House Market downturn on House price index.

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# Slowdown in the housing market

- Started in the beginning of 2008 Speeded up by the bank crash
- Sales changes 2007-2009:
  - 11.000 in 2007
  - 4.000 in 2008
  - 2.000 in 2009
- Prices changes 2007-2009:cash value/real
  - 9,4%/8,7% in 2007
  - 6,2%/-5,3% in 2008
  - -11,0%/-21,0% in 2009

# Stratification/weight structure

- Prices, three months moving average
  - 2000 sales are equivalent to 6.000
- Weights, sales, three year moving average
  - Laspeyres 2005-2008
  - Paasche 2006-2009
- Stratification structure
  - Four regions
  - Two types of housing.
  - 4-5 sizes, 30-69,70-109 etc, fixed
  - 26 strata/cells in the index

# Problem in economic crises

- Fall problematic, random sales, quality differs better or vorse properties sell, fewer prices, more volatility.

- Two main problem arise in the economic downturn
  - Fall in salesvolumes
    - No prices in a cell
    - Less than five contracts in a sell
  - Non monetary transactions
    - By a house and part of the payment is your own housing

# Problem with fewer prices

- Missing prices
  - Last available price used
    - CPI rules used, if not available for three months, price change in cell, or total price change
  - At least five contracts in a sell, volatilty criteria.
    - Fewer contracts, fill up to five, last available
    - Using all available price information.

# Size of the problem

- 2008 there were 5% of prices in a cell not available or less then five
  - Missing, 1%, less than five, 4%
- In 2009 this figure was nearly 20%
  - Missing 4%, five or less, 15%,
- Biggest problem, single houses in the capital area 2009, 70%
  - Missing 27%, five or less 43%

# Non monetary transactions

- Pay for a property not with money but with other forms of payments such as houses, apartments, cars, caravans.
  - Nearly 30% with houses, 3% other
- The house traded is here similar to monetary transaction and treated as such in the house price index

# How is this form of payment treated

- Price concept in the House price index: the present value
- Money in the future not as valuable as of today.
- Same method in this case.
  - The rate of return similar as in the use cost model.
  - Highest real interst rate+inflation

# Example

- With a property that you buy for 30 million ISK:
  - Your house 10 million
  - Money 20 million
  - Rate of return 25%
- Present value of the contract.
  - 10/1,25+20=28
- Price change: 28,5/30= -7,1%

# Influence on the index

- If nothing had been done the index would have measured 2.9% higher house prices.
- This form is most common in the capital area and the effect 4.8%
- Not as big outside the capital area single flat houses there -7.9%