

Narodowy Bank Polski Workshop



Evaluation and Analysis of the Value of German Real Estate Following the Financial Crisis of 2007¹

SPEAKER: DR. CHONG DAE KIM

LOCATION: ZALESIE GÓRNE

DATE: 5. – 6. DECEMBER 2019

1: authors of the paper: Dr. Volker Arhelger (Ergo Group AG) and Dr. C. D. Kim (TH Köln)

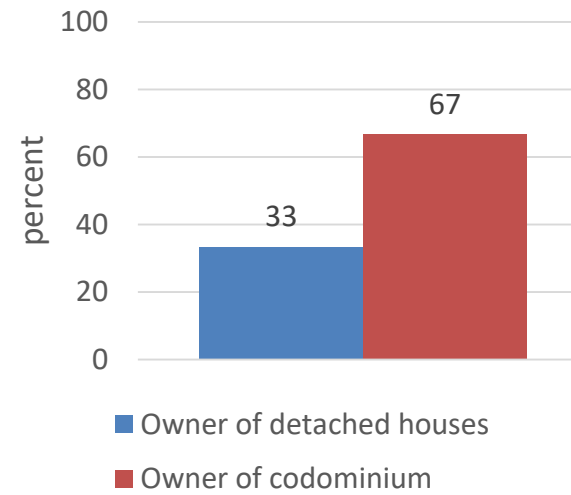
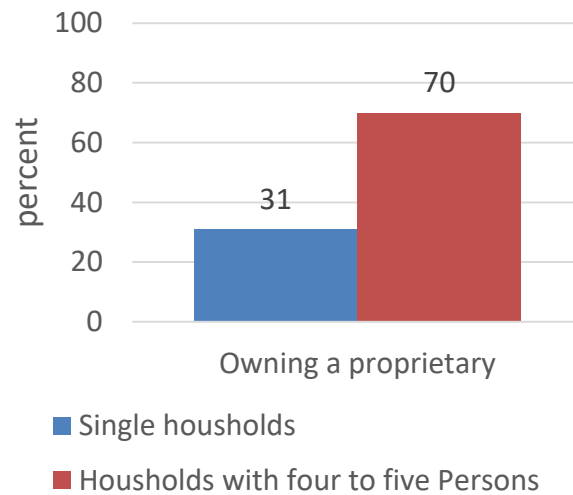
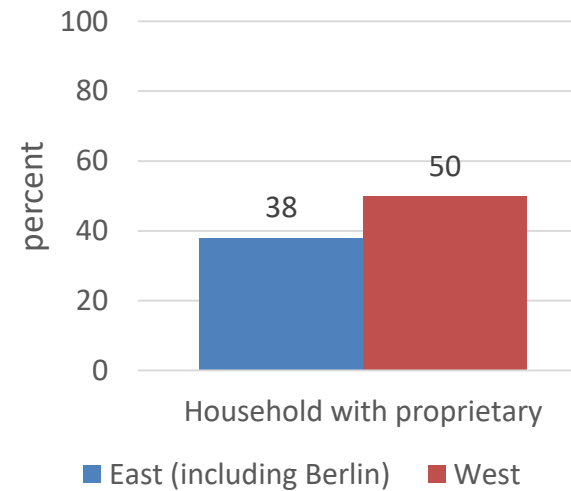
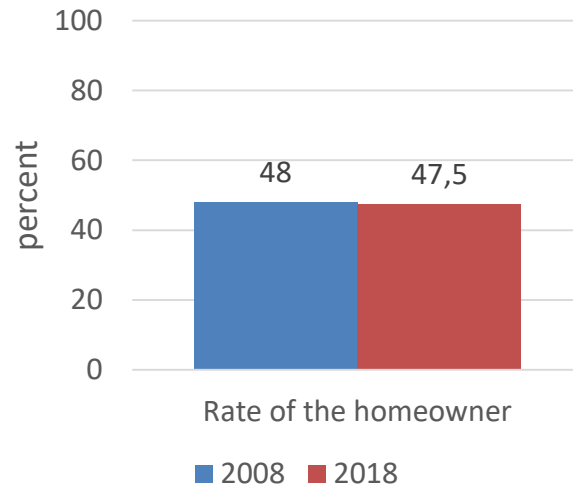
Date: 11.12.2019

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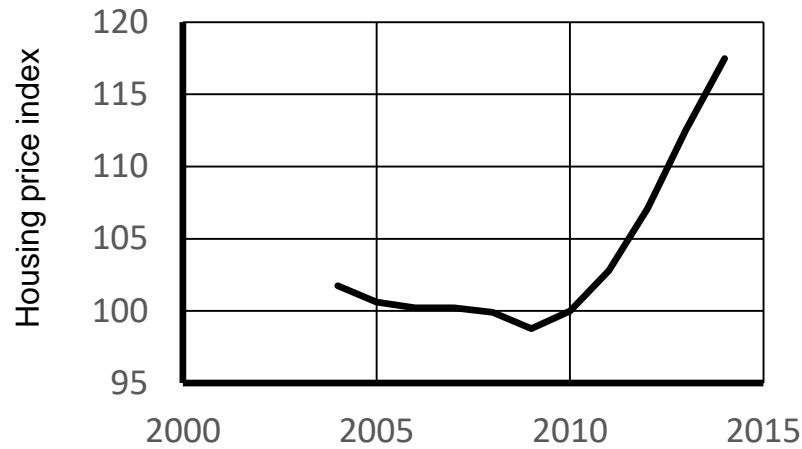
Speaker: Dr. C. D. Kim

Structure of the presentation

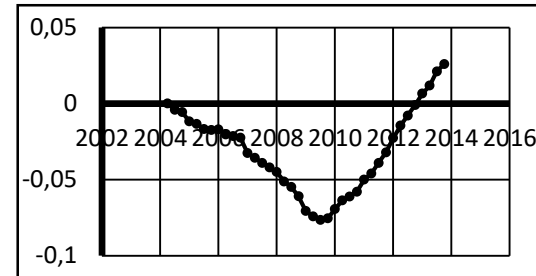
1. Motivation
2. Research Goal
3. Evaluation of rating factors and interest rate
4. Conclusion



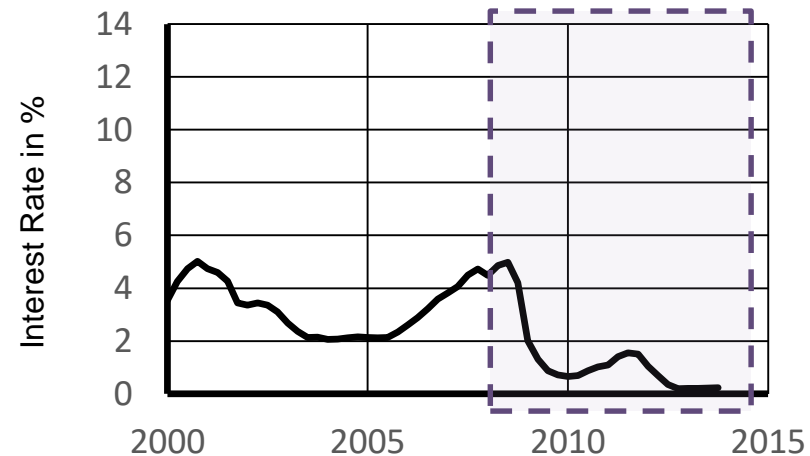
According to the Data of the federal Statistical Office



Nominal housing prices have risen sharply since mid-2009.



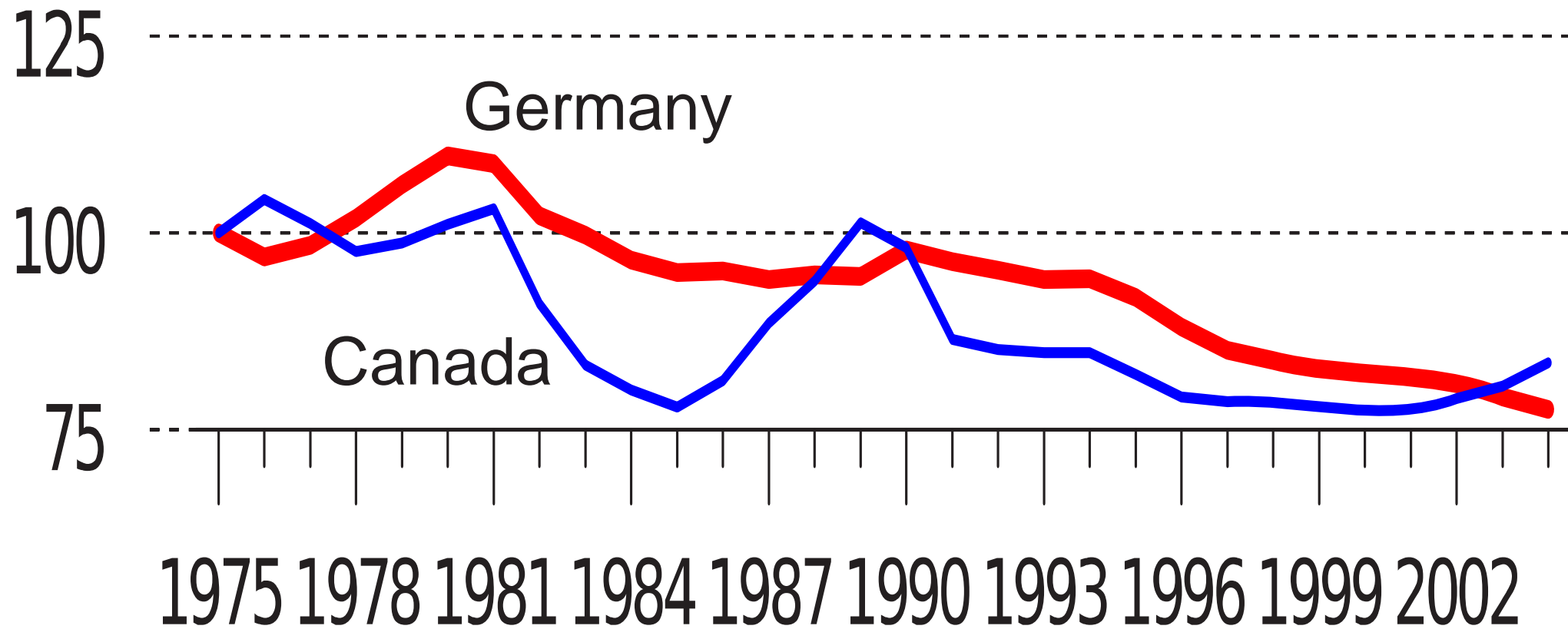
The change is more pronounced with real prices.



ECB interest rates have fallen strongly after 2007, reaching a (temporary) lowest point in mid-2009.

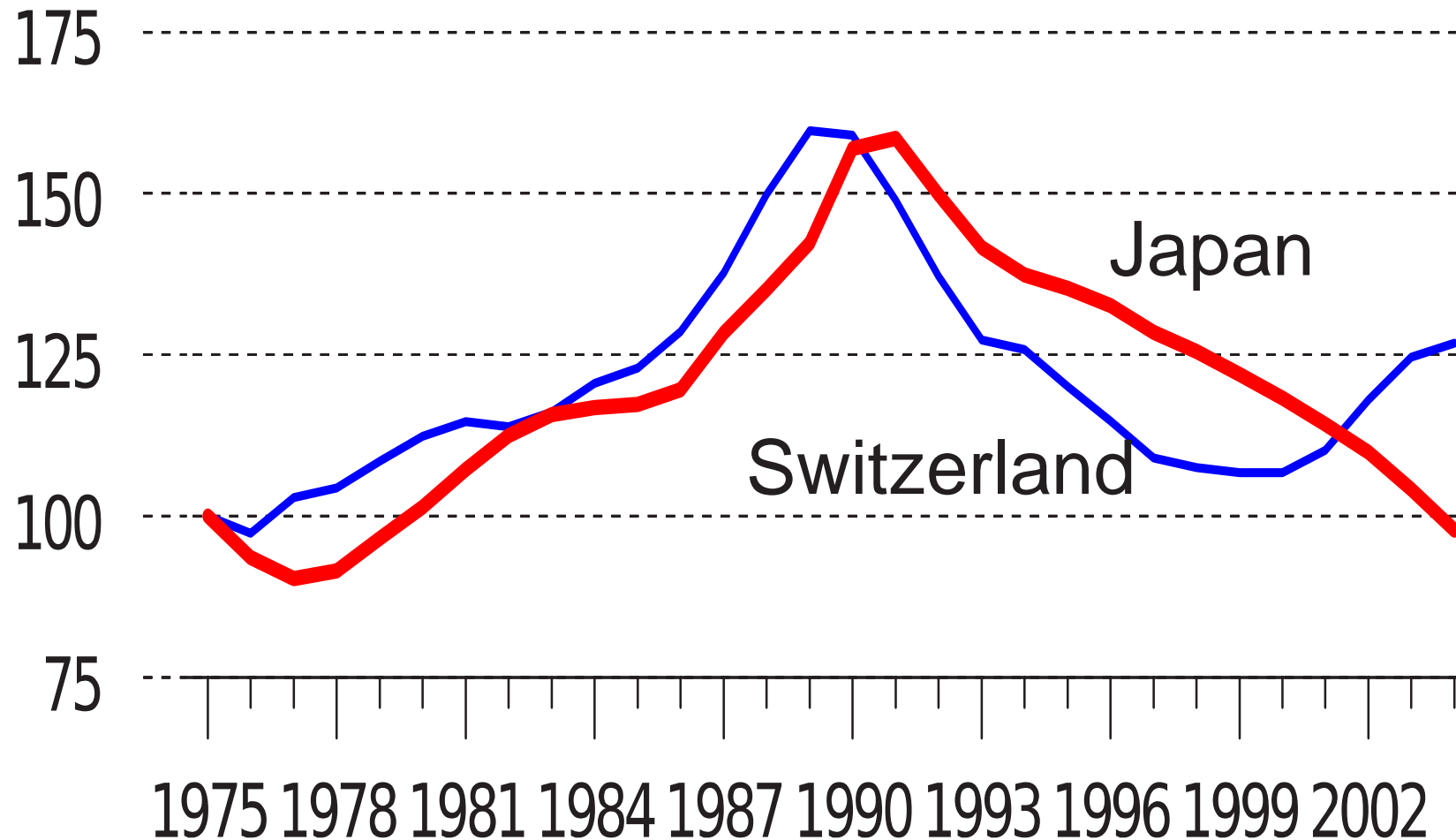
Data source: www.bundesbank.de

REAL HOUSING PRICES IN SELECTED COUNTRIES



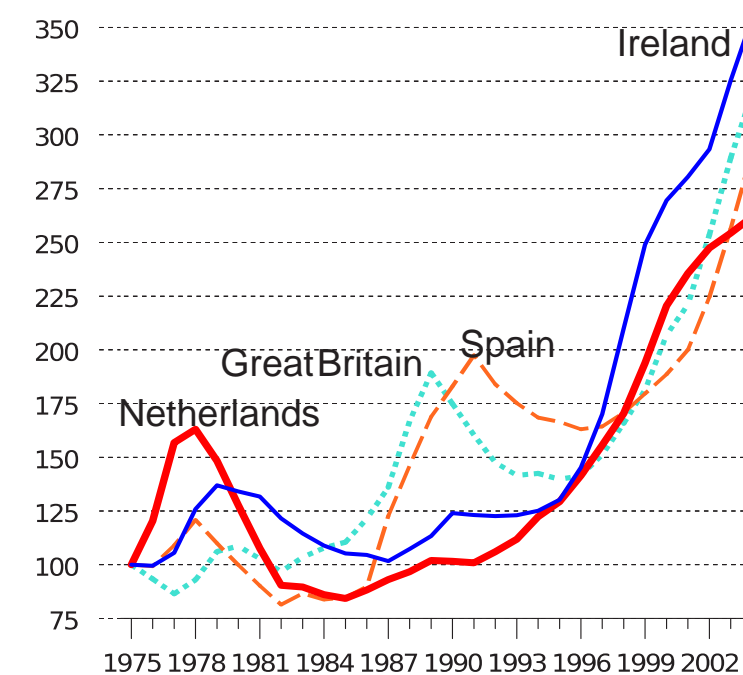
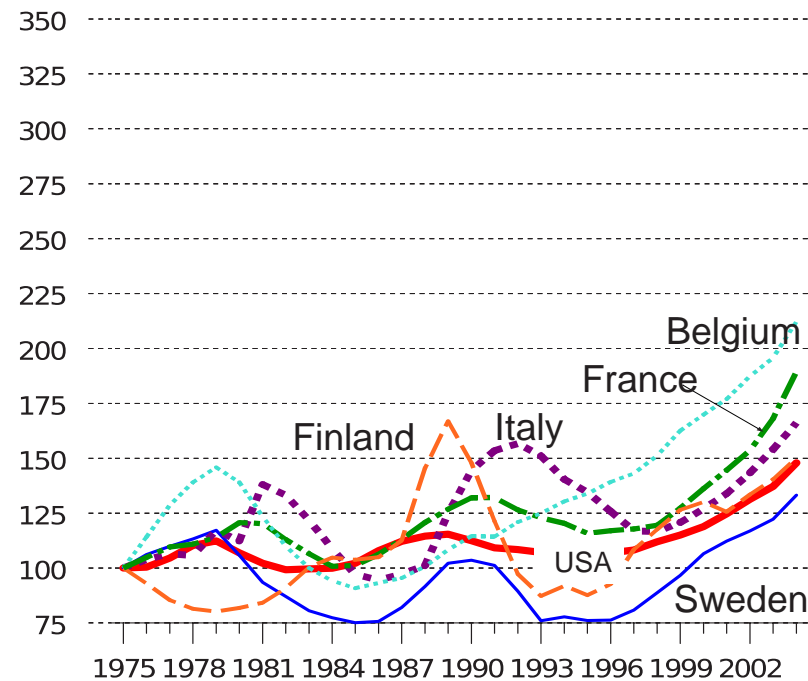
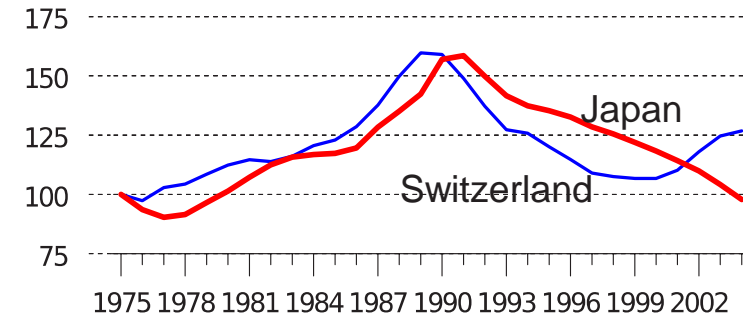
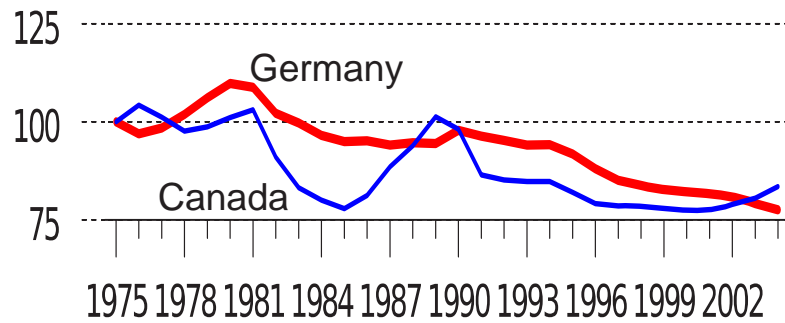
Source: Weekly report of the DIW Berlin No. 17/2008

REAL HOUSING PRICES IN SELECTED COUNTRIES



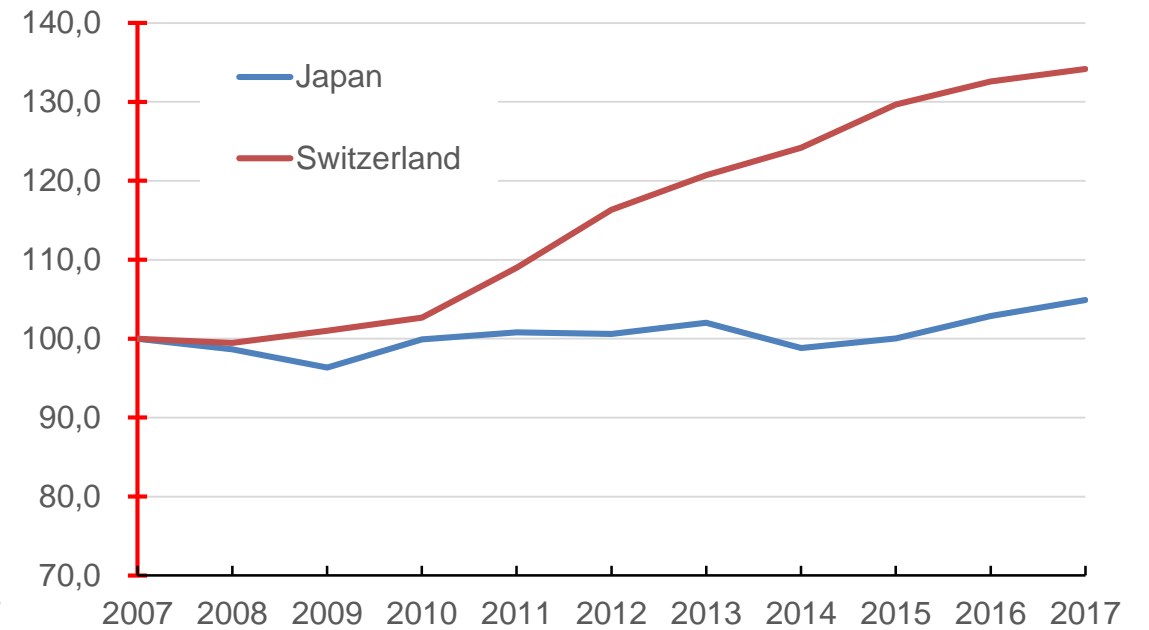
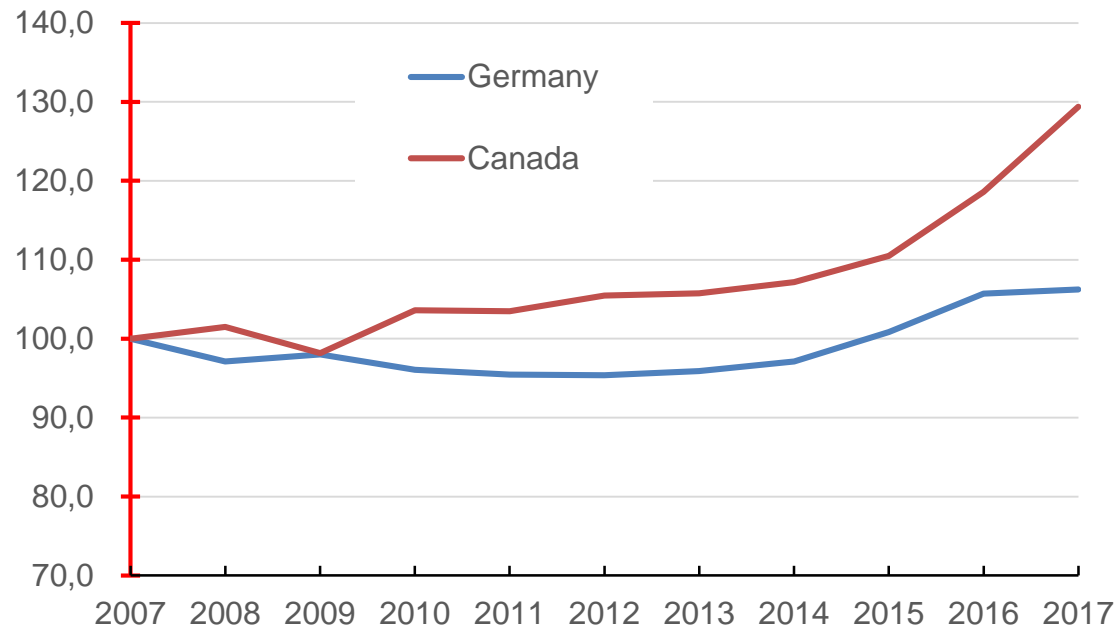
Source: Weekly report of the DIW Berlin No. 17/2008

REAL HOUSING PRICES IN SELECTED COUNTRIES



Source: Weekly report of the DIW Berlin No. 17/2008

REAL HOUSING PRICES IN SELECTED COUNTRIES



Source: stats.oecd.org

2. Research Goal

- I. Applying the partial solution approach to the German housing market
- II. Analyzing certain characteristics of the housing market
- III. Showing the relationship of these characteristics to the interest rate

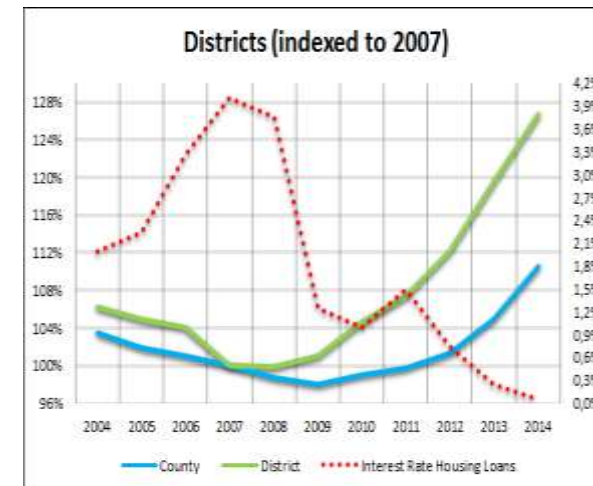
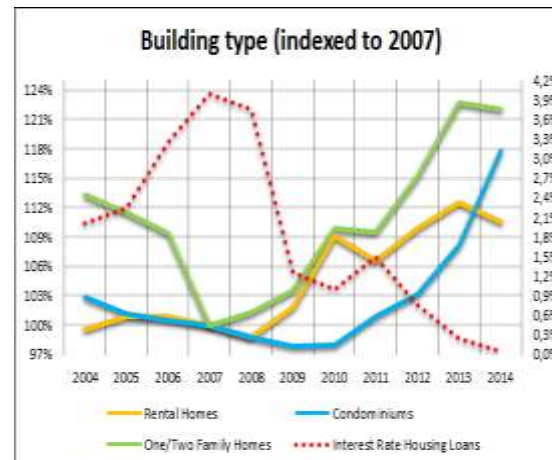
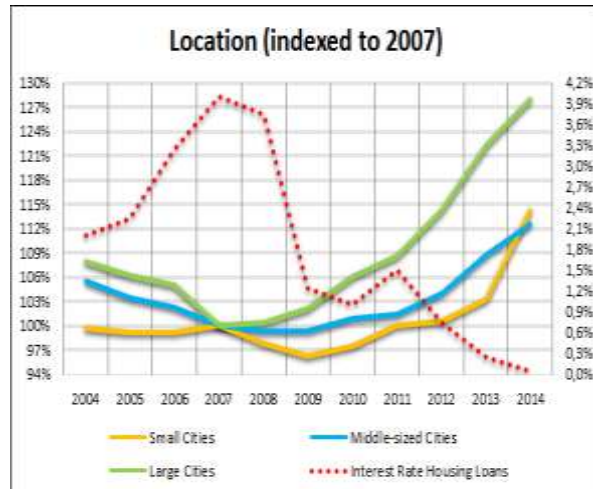
3. Evaluation of rating factors and interest rate

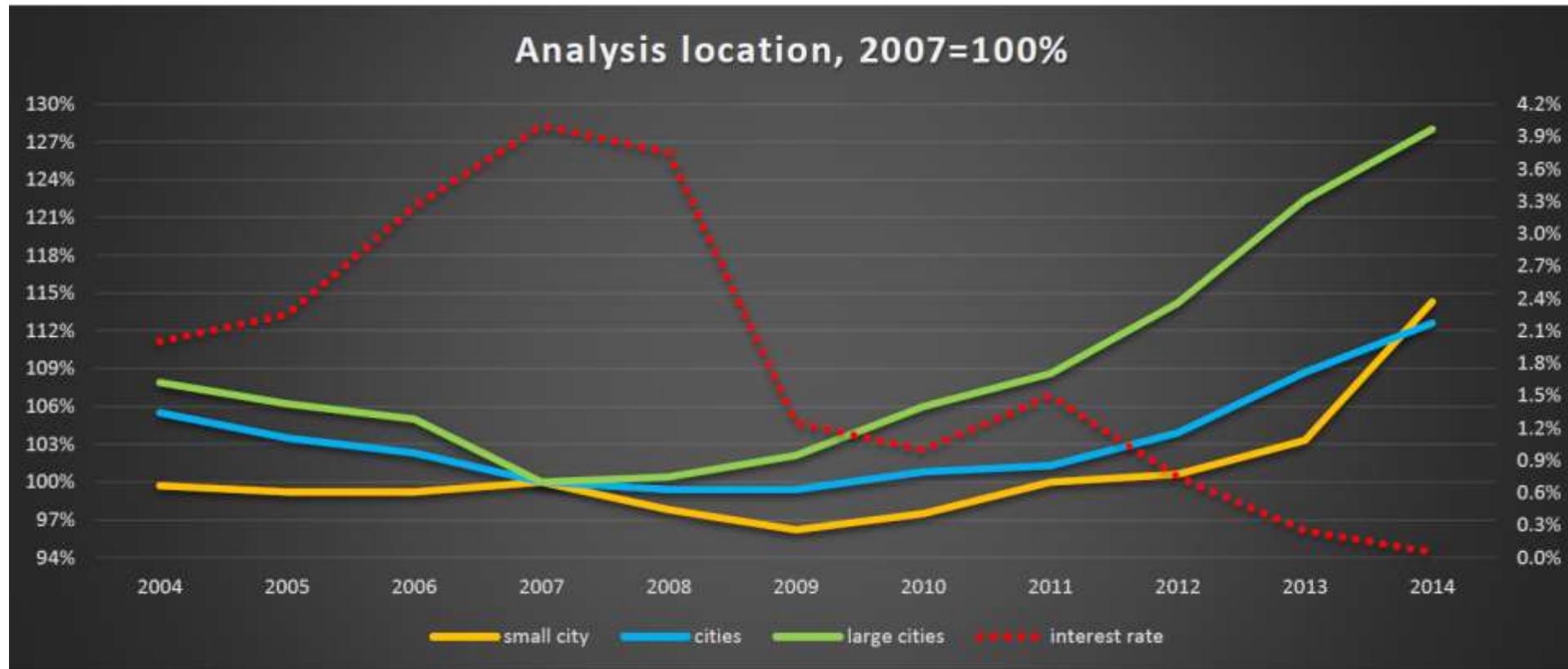
- Long-term and short-term analysis of select characteristics
- Long-term (10 years)
 - Location
 - Housing type
 - Districts and East-West comparison
- Short-term (3 years)
 - Housing type
 - Condition of the building

3.1 Long-term location

- Location is strongly correlated with the development of interest rates over the last ten years
- Factors converge towards each other up to 2007
- Hierarchy in demand:
 - Buyers prefer the more attractive locations until the price level becomes too high
 - Only then demand for housing in slightly less attractive locations rises

- Germany has seen a strong rise in prices as well as low interest rates in the last few years.
- The main result is that higher price levels have been spreading from the city centers to less attractive locations.

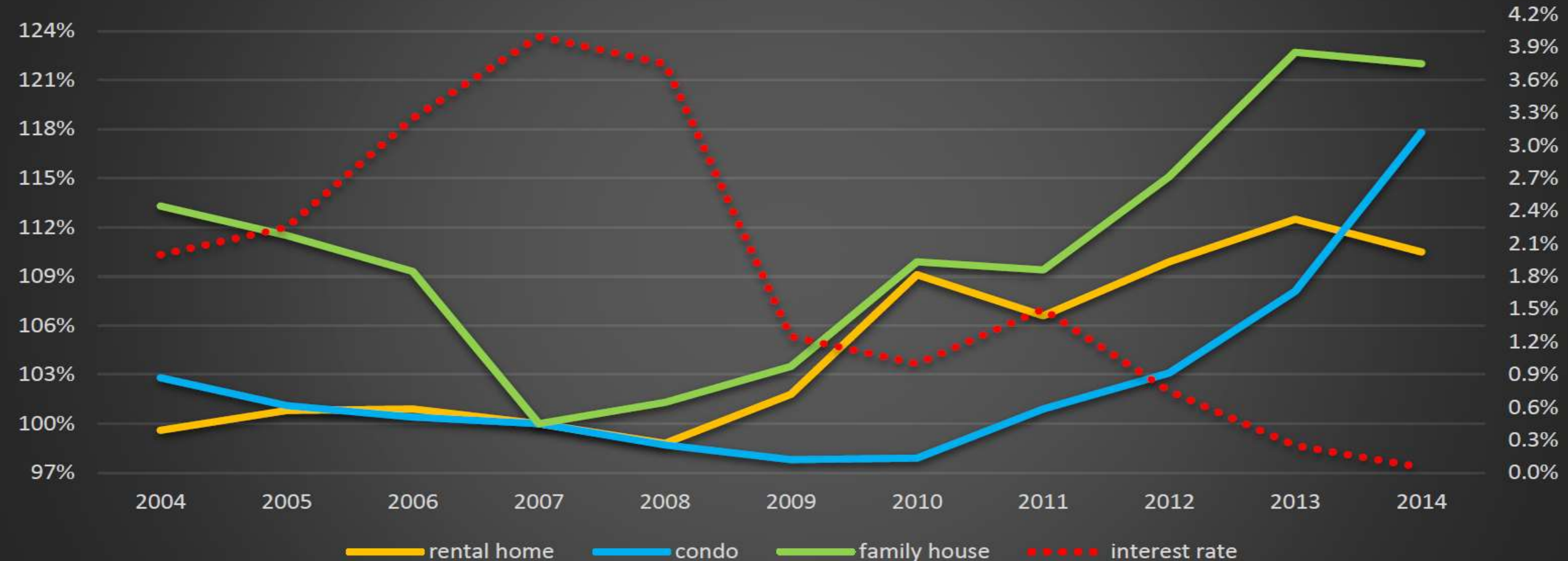




3.2 Long-term Housing Type

- Condominiums and rental homes are stable before the crisis, while family homes depreciate in value
- Expected fall in interest rate influenced prices of rental homes and family homes positively, while prices of condos remain until 2010

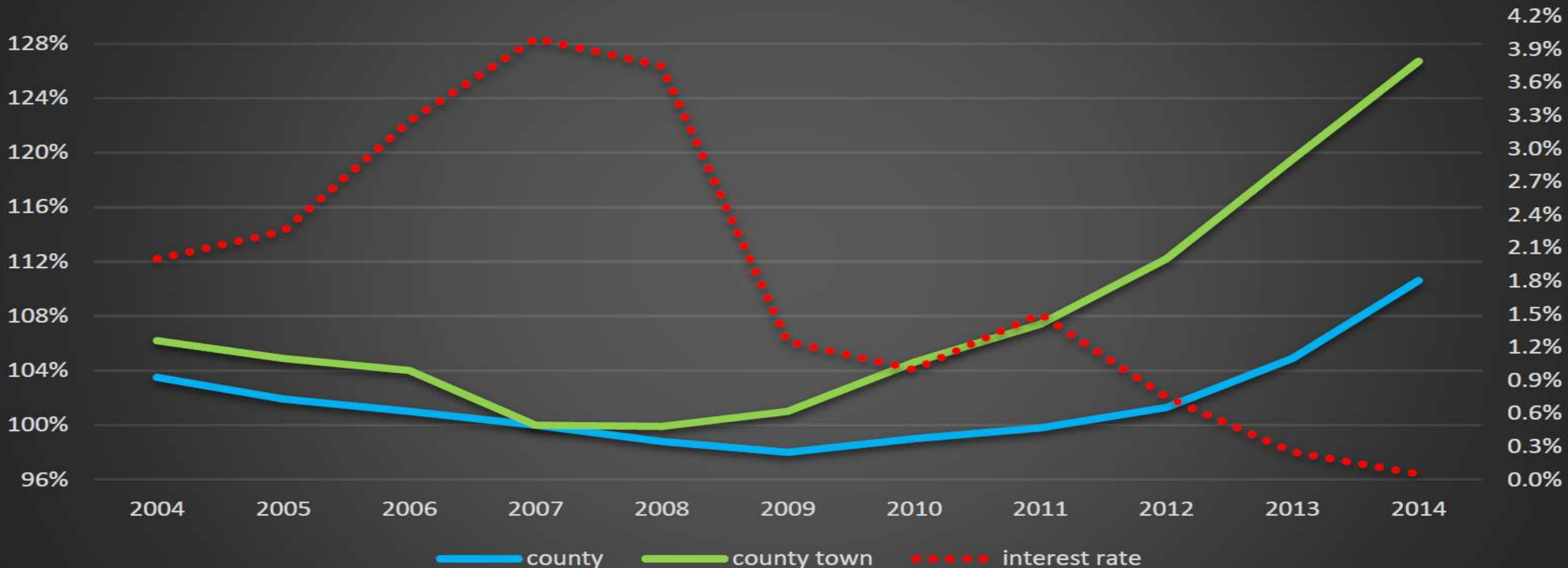
Analysis Housing type, 2007=100%



3.3 Long-term Districts and East-West comparison

- Prices in both districts (county and county town) converge with rising interest rate
- As soon as interest rate drops prices diverge

Analysis districts 2007=100%



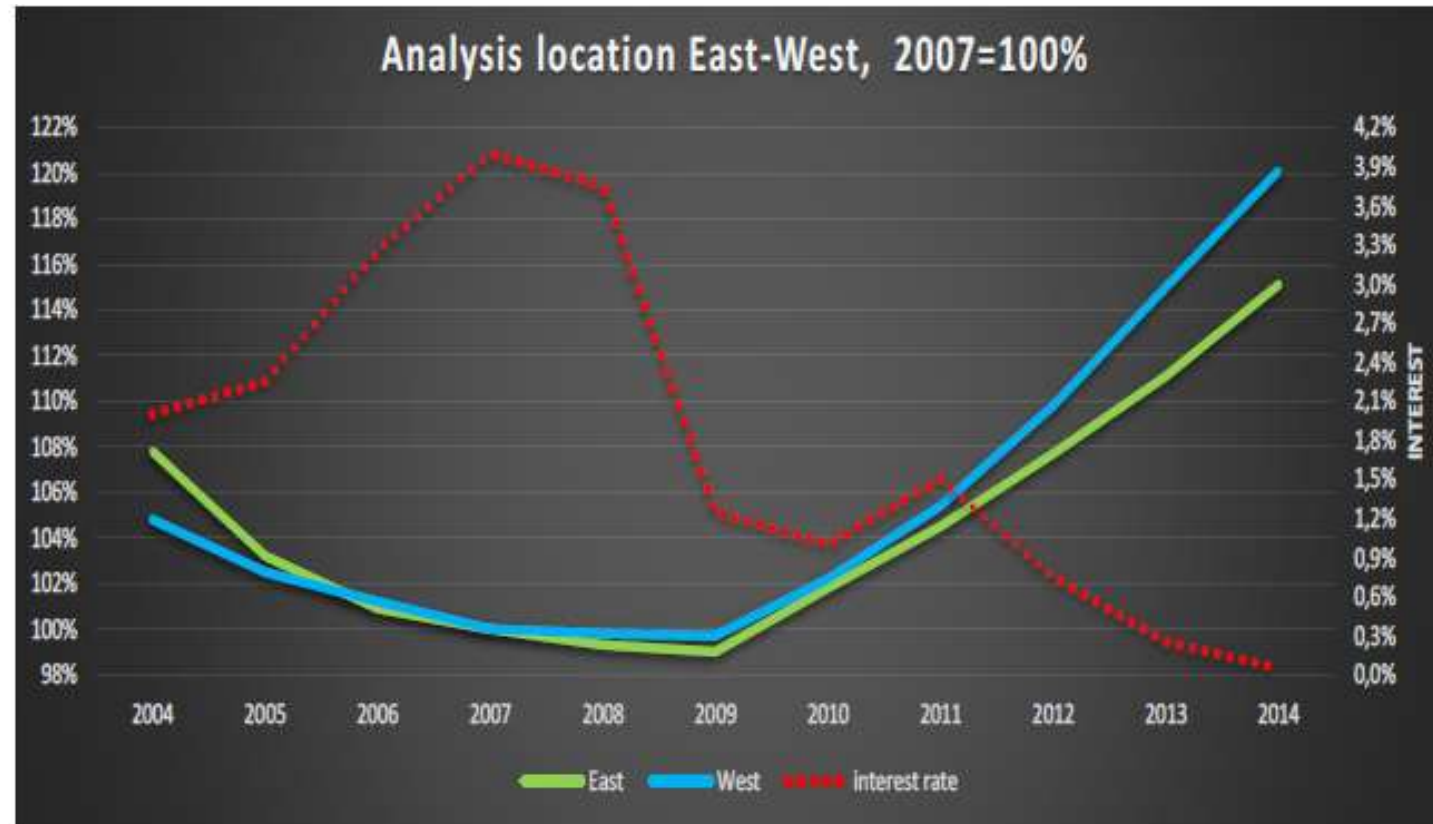
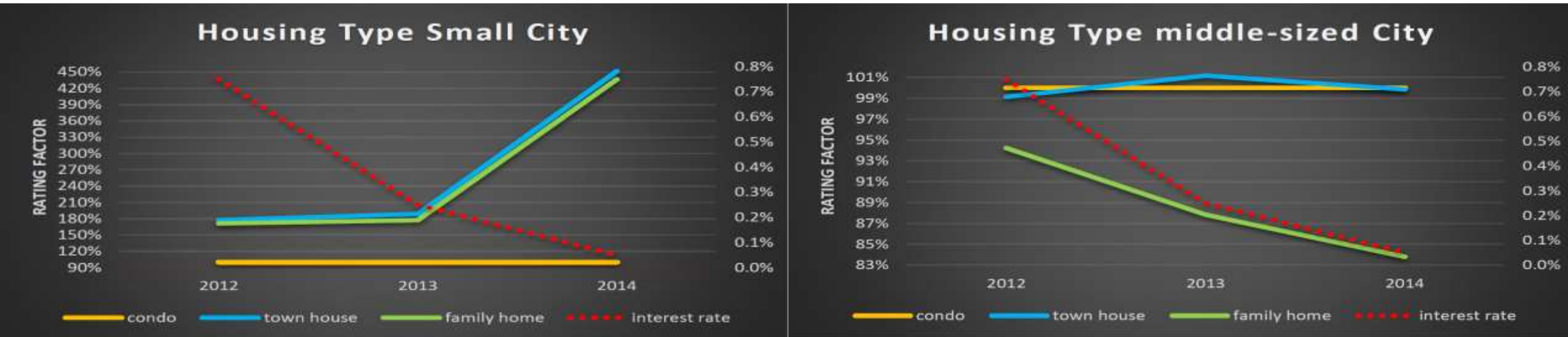


Figure 9: 10 year analysis East-Germany vs. West-Germany

- Prices in east and west Germany are relatively similar until 2010, when demand in the west rises stronger than in the east

3.4 Short-term Housing Type

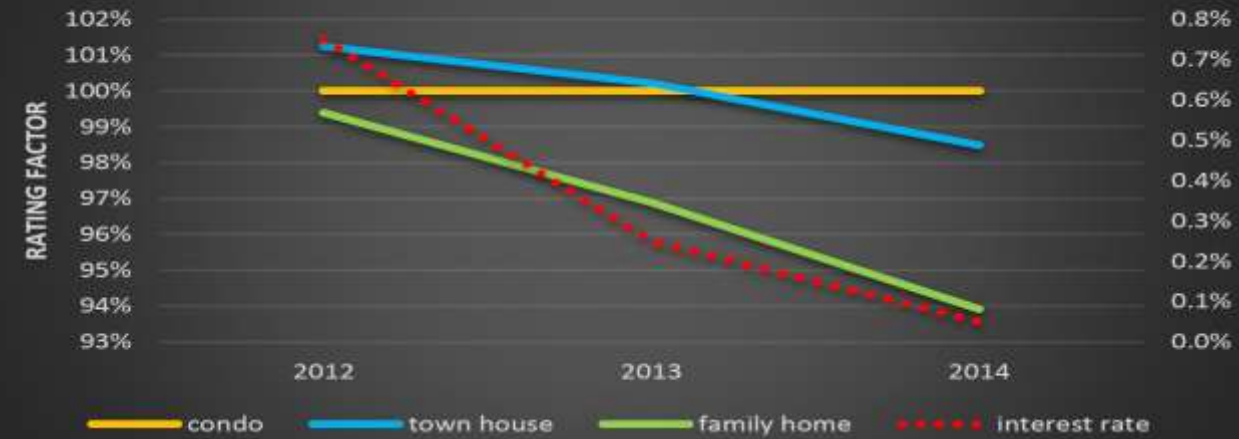


- Prices of rental homes, condos and family homes are mainly correlated with location, rather than interest rates

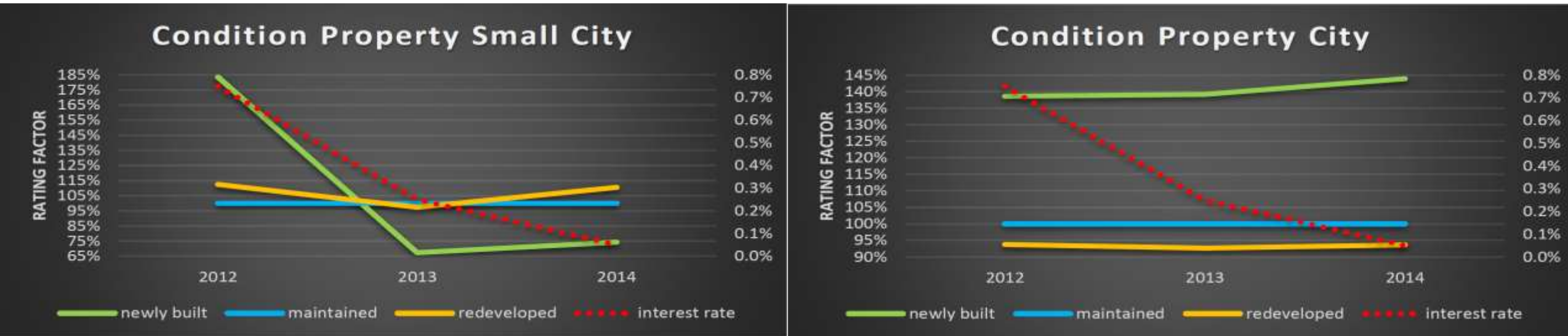
Housing Type Large City



Housing Type NRW



3.5 Condition of the building



- Condition of the building is a strong influence on the price
- Comparison of newly build, redeveloped and maintained buildings

Condition Property Large City



Condition Property NRW



4. Results

- The falling interest rate has left its mark on the German housing market
- Large cities:
 - Condominiums show large gains, with the demand for townhouses normalizing since 2013. One and two family homes depreciate in value.
- Middle-sized cities:
 - Townhouses and condominiums are more or less equal. One and two family homes depreciate in value.
- Small cities:
 - Townhouses and one and two family homes have gained substantially. Condominiums do not make any major gains.

Conclusion/Outlook

- The falling interest rate has strong influence on German housing market.
- All models show the significant correlation between the housing price and the interest rates.
- The extremely good German economy, the still extremely low interest rates and immigration have stimulated the German real estate market positively.
- The Bundesbank calculates that apartments and houses in German cities are overvalued by up to 30%, not only in Germany's seven largest cities, but also in less attractive locations.

Conclusion/Outlook

- The extremely low interest rates in the eurozone attracted domestic and foreign investors into the German real estate market.
- Between 2012 and 2016, Germany gained almost three million inhabitants (two million are mainly from southern and eastern Europe).
- The immigration created an additional need for housing, especially in the southern and western German metropolitan areas, which favored the immigrants.
- Do we have a real estate bubble?

Thank you for your attention!