Housing price indexes in Central and Eastern Europe. A comparative study on the models.

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Agenda

- 1. Motivation
- 2. Literature review
- 3. Key issues in developing a housing price index
- 4. Study of the models
- 5. Conclusions

Motivation

Public information has limited details about methodology

"... the price of a typical house..."

What "typical" means?

"... the price for 3 bedroom apartment increased in 2014, shows... **X** index"

Why 3 bedroom apartments?

Motivation

Research questions:

- What are the models used for housing price indexes in Central and Eastern Europe countries?
- What are the characteristics in order to have a comparison between the models?

Motivation

Hypothesis:

- The majority of the public housing price index are based on median/average sales price — which doesn't fully provide the full spread of the housing market;
- There are significant differences between hedonic models' characteristics that are used in building the models;

Key issues in developing a housing price index

Created by

- Governmental institutions
- Academic / research
- Private companies



Source of data

- Listings
- Surveys
- Transactions
 - Public data
 - Private data



Data covering

- Narrow
- General







Methodology

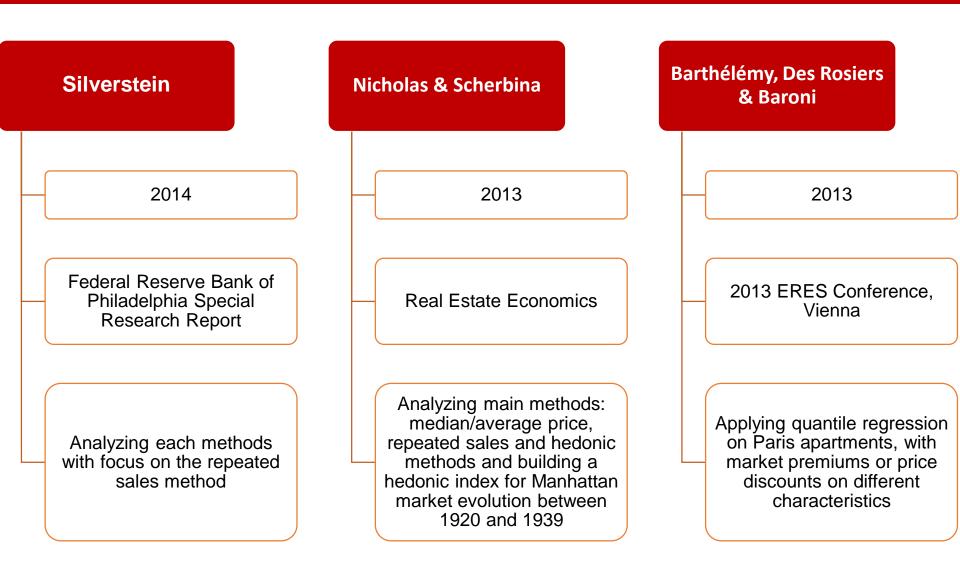
- Median /average price
- Econometric: hedonic, repeated sales



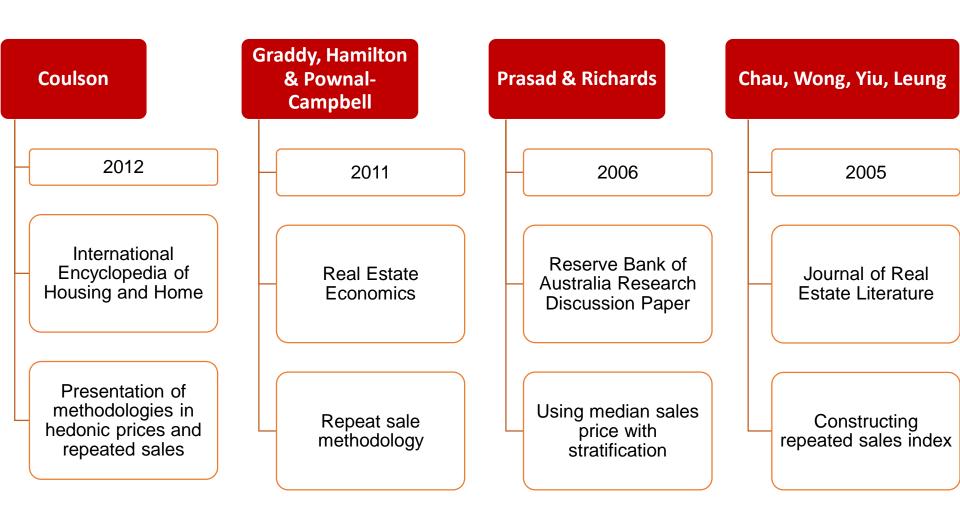
Recurrence

- One time transaction/ listing
- Multiple sales

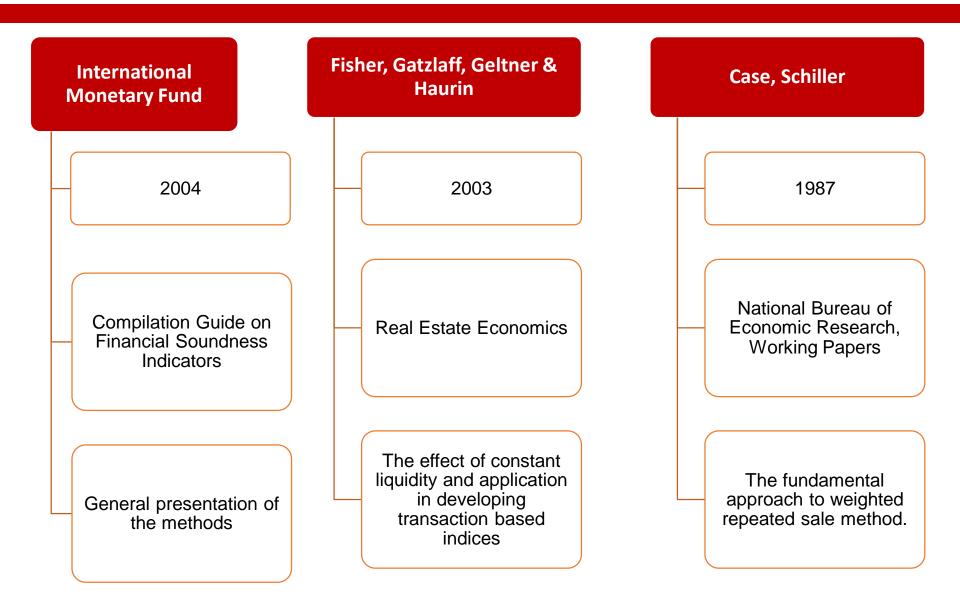
Literature review - Housing price indexes methodologies



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Statistics Austria

- Austrian Federal Ministry of Finance from its property acquisition tax database
- Entire country
- Started: 2010
- Monthly
- Segmentation and weighted index on transactions

Austrian National Bank (OeNB)

- two different breakdowns

 one by regions (Vienna and Austria excluding Vienna) one by types of property (condominiums and single-family houses)
- Entire country
- Monthly
- Hedonic price index

Austrian Economic Chambers - Immobilienpreisspiegel

- a survey among real estate trustees and estate agents.
- Entire country
- Monthly
- Presenting listing prices

RE/MAX ImmoSpiegel

- data from the land registry, or the platform www.immobilien.net
- Entire country
- Bi-annual
- immoDex median list price

Czech Statistical Office

- Data from the real estate agencies
- Entire country
- Quarterly
- Weighted arithmetical average

Hypoteční banka

- Quarterly
- Base: 2008
- Entire country
- Monthly
- Average market price realistic estimates of market prices

Hungarian Central Statistical Office

- Data from National Tax and Customs Administration of Hungary (NAV)
- Entire country
- Quarterly since 2007
- Weighted average of the price indices of second hand homes and new homes

FHB Mortgage Bank

- Quarterly
- Base: 2000
- Since 1998
- Entire country
- Data from FHB and APEH database
- Hedonic methods

National Statistical Institute

- Data since 1993 through a survey which covers real estate agencies where real transaction price of a dwelling sold by a household is registered
- Quarterly
- Hedonic method

BULGARIAN PROPERTIES' Indexes

- Monthly since 2006
- Uses own listing database
- Asking price indexes for 4 important cities
- Base: 2000
- Average asking price per sq.m.

Statistical Office of the Slovak Republic

- Data since 1993 through a survey which covers real estate agencies where real transaction price of a dwelling sold by a household is registered
- Quarterly
- Average market prices

Central Statistical Office of Poland

- Data: final market price collected through an administrative data source
- Quarterly
- Entire country since 2006
- chain-linked Laspeyres-type price Hedonic method

Slovenia

Statistical Office Republic of Slovenia

- Data: real estate agents, notaries and the Tax Administration of the Republic of Slovenia through statistical survey
- Entire country since 2010
- Hedonic method

National Institute of Statistics & National Bank of Romania & National Union of Notary in Romania

- Surveying Notary Chambers on actual transactions
- Entire country
- Started: 2009
- Base year: 2009
- Main objective: quarterly evolution
- Hedonic price method

Ziarul Financiar & Coldwell Banker

- Listing from Anuntul Telefonic newspaper
- 3 bedroom apartments in Bucharest on area
- Monthly
- Average listing price excluding ground level and top level, for apartments built between 1980 to 1990

Study of the models

Romania

Eurobank Property services

- Own database
- Entire country
- Base year: 2005
- Quarterly
- Hedonic price method based on different characteristics

Imobiliare.ro

- Listings
- Bucharest and major cities
- Since: 2008
- Weekly/Monthly
- Average selling price per sqm

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- Multiple listing service database – actual transactions (Flexmls)
- Bucharest ARM Indexgeneral view & area
- Started: 2015
- Base year: 2013
- Main objective: price/sqm and price/ unit
- Quarterly analyzing from Q1 2013
- Median sale price weighted on type of dwelling and area
- Using stratification

Comparison

- 18 indexes from which 8 official that follow the Eurostat Owner Occupied Housing project
- Use of databases:
 - governmental tax databases
 - surveys
 - listings
- Recurrence is monthly or quarterly
- Models used:
 - hedonic (but relative low information on the methodology)
 - average price on selected type of apartments

Conclusions

- Each country focus on the house price indices at the local level without a view on regional comparison
- The adoption of house price indices is relatively new (starting from end of 2000s')
- The regional characteristics should be taken into consideration
- More details information about methodologies used are needed for proper assessment of the indices

Thank you!

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