

How to evaluate valuation models?

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Mass appraisal in the Netherlands

- Legal framework
- Multi purpose valuation
- Automated valuation models
- Quality control
- Sales ratio's and mutual relations

Council for real estate assessment

- Task: quality control of mass valuation
- Involved parties
 - municipalities
 - polderboards
 - national revenue office
- Council board has 11 members
- Staff 20 persons

Legal framework

- Act for real estate assessment 1995
- Objectives
 - Uniformity, quality, efficiency, clarity
 - valuation for taxation purposes
- Activities
 - 458 municipalities responsible for appraisal
 - 8 million properties to be appraised
 - values used by national revenue office and (40) polderboards

Frequency of re-assessment

- From every four year
 - valuation 1995 used for taxation 1997-2000
 - revaluation 1999 for taxation 2001-2004
 - revaluation 2003 for taxation 2005-2006
- to yearly
 - revaluation 2005 for taxation 2007
 - revaluation 2007 for taxation 2008

Definition of value of real estate

- Real market value
 - the price that a reasonably acting buyer and a reasonably acting seller would agree on during a normal transaction with optimal preparation
- Residential property
 - value based on comparable sales
- Non-residential property: highest of:
 - market value (mostly based on rent prices)
 - reproduction costs

Purpose of mass appraisal

- From fiscal valuation
 - Municipal real estate tax
 - Real estate tax polderboards
 - Imputed income national revenue office
- To multipurpose valuation
 - Increasing use of assessed values
 - Part of system of official government data bases

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Municipal real estate tax

- for residential property:
 - only owner pays taxes
 - tax rate (average) 0,2% of value
 - tax for average house €400
- for for non-residential property:
 - both owner and occupier taxed
 - tax rate (average) 0,2% + 0,2 %
- about 6% of financial means for municipality

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•Real estate tax polderboard

- only for owner
- only for built property
- tax rate (average) 0,05% of value
- same rate residential and non-residential
- tax for average house €100
- 100% of financial means from taxation

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•Central government until 2007

- only use valuation for owner-occupied houses
- 0,6% of value is added to your income
- tax for average house €750
- but interest paid for mortgage can be deducted

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•Central government from 2007

- valuation used for company tax
- depreciation can be deducted from profit
- but no deduction beyond
 - 100% of value (if property is rented out)
 - 50% of value if property is used within the firm
- Limit for deduction generates €2 billion

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Non-fiscal use of assessed values

- Social housing
 - Regulations for maximum rent price
 - regulations only apply for houses with a value lower than regional level
 - maximum rent price base on size, quality and location
 - location component will be based on "relative assessed value"
 - Use by social housing organizations
 - Rent price as fixed percentage of assessed value
 - Fixed percentage per complex or neighbourhood

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Other use of assessed values

- Applications by the taxpayer
 - Financing
 - Banks allow assessed value as base for mortgage
 - Banks allow assessed value as base for interest reduction
 - Mostly for second mortgage for improvements
 - Insurance
- Physical planning and public investments

How is mass appraisal done?

- Done by municipality or private firms
- Residential property
 - value based on comparable sales
- Non-residential property: highest of:
 - market value (mostly based on rent prices)
 - reproduction costs
- Valuation report available for taxpayer

•Cost of appraisal and assessment

- More than 8 million properties to be valued
- Costs about €160 million a year
 - about 40% administration and object characteristics
 - about 40% market analysis and valuation
 - about 20% appeal
- Total tax revenues about €5 billion (2006)
- Cost 3% of revenues
- Cost €20 per property a year

•Computer assisted mass appraisal

- different types of models
 - availability of market data
 - type of property and comparability of property
 - market competition
- results of CAMA models
 - assessed value
 - valuation report

Valuation report

- Taxpayer receives valuation report
 - on paper
 - by internet

VALUATION REPORT RESIDENTIAL PROPERTY

| | | | |
|---|------------------------------|--------------------------|--------------------|
| Address property: | | Date: January 1st, 1999 | |
| Address: | Wismutstr. 80 | | |
| Postal code: | 2506 CZ | | |
| City: | Dies-Hang | | |
| Address identification: garage Wismutstr. 80 included | | | |
| Characteristics of the property: | | | |
| Category: | residential | parcel number: | 13 |
| Year of construction: | 1981 | lot area: | 130 m ² |
| Object characteristics: | | | |
| Type of property: | Single family home | Special characteristics: | renovated in 1995 |
| Number of floors: | 2 | | |
| Building year: | 1981 | | |
| Area of property: | 315 m ² | | |
| Garage: | 2 | | |
| Address: | Blind, garage | | |
| Market data: | | | |
| Assessed property in value: | | | |
| Transact. date: | 12.01.1998 | assessed value: | € 200.000 |
| Transact. date: | 12.01.1998 | special assessment: | |
| Other relevant market data: | | | |
| Address: | Wismutstr. 79 | Wismutstr. 80 | Wismutstr. 81 |
| Postal code: | 2506 CZ | 2506 AA | 2506 CA |
| City: | Dies-Hang | Dies-Hang | Dies-Hang |
| Type of property: | Single family home at street | Single family home | Single family home |
| Neighborhood: | Dies-Hang | Dies-Hang | Dies-Hang |
| Building year: | 1981 | 1981 | 1981 |
| Area: | 315 m ² | 340 m ² | 315 m ² |
| Transact. date: | 12.01.1998 | 12.01.1998 | 12.01.1998 |
| Assessed value: | € 200.000 | € 200.000 | € 200.000 |
| Assessed value: | € 200.000 | € 200.000 | € 200.000 |



•Types of valuation models

- systematic and direct comparison with other property (that has been sold recently)
 - statistical clusters
 - case based reasoning
- no models based on theoretical calculations (like MRA-models)
- model must be explainable in valuation report

•Quality standards for mass appraisal

- International valuation standards
 - mass appraisal for taxation
- Special standards
 - legal framework (act and special regulations)
 - guidelines of the Council (Waarderingsinstructie)
 - standards on the CAMA models
 - standards on the valuation report

Quality standards

- is the valuation in accordance with sales prices;
- are the mutual relations between the assessed values of properties consistent;
- is the valuation report for each property convincing?

Role for valuation models

- the model
 - explains the difference between a new and old value;
 - gives consistent results when other recent sales are used;
 - explains the difference between the value and the sales price of that property;
 - makes clear the difference between the value of a property and the value of any other property;
 - will result in a logical value in case one of the characteristics of the property is changed.

Quality control

- Municipality checks quality
 - guidelines from Council of RE assessment
 - results reported to Council
- Check before value is formal
- Results of appeal are monitored

Guidelines for quality control

- Sales ratio analyse
 - all sales prices of residential property analysed
 - average ratio is analysed and reported
 - all individual ratio's are analysed as well
 - simple to perform
- Conclusion
 - Assessed values are on market level
 - mutual relations not always correct

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Quality control without sales price

- Three scenario's
 - check the structure of the valuation model
 - very high demands on skills of people
 - check how model deals with hypothetical changes
 - risk of hypothetical value are made official
 - comparing pairs of objects

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Extra guidelines quality control

- sales ratio analysis first
- selecting pairs of objects
 - comparisons that might be made by taxpayer
 - pairs for which mutual relation is changed
- comparing object withing a pair
 - is the ratio between objects as could be expected
 - is the difference in value explained by the valuation reports

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Concluding remarks

- Quality control is not only a matter for the valuation experts
- Sales ratio analysis is very important, but not enough
- Selecting pairs of properties and comparing them is a simple and useful addition to sales ratio analysis

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Thank you

- Any questions
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