Integrating the Generations
FIG Working Group 2008

VALUATION OF RETAIL
LOCATIONS AND PEDESTRIAN
FLOW DATA

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Contents

- Inner-city locations: A topic for valuation?
- Standard Ground Values
- Valuation methods
- Integrating pedestrian flow data
- Example
- Previous findings
In Germany we feel a trend „back to the cities“

In the focus are the inner cities and in many places they are in a process of change

- Big shopping developments at the edge of CBD, especially in higher order centres,
  - relocating the CBD,
  - not enlarging the CBD.
Inner city development

Source: ECE – Ernst-August-Galerie Hannover, Hamburg 2008 (www.ece.de)
Location is changing: Shopping center at the edge of the CBD

Example:

- Hanover next to main station
- 140 shops
- 30,000 sqm new sales floorspace

Source: ECE – Ernst-August-Galerie Hannover, Hamburg 2008 (www.ece.de)
Location is changing: Shopping center at the edge of the CBD

Example:
- Hanover next to main station
- 140 shops
- 30,000 sqm new sales floorspace

Result: The quality of the locations within the CBD is changing, some locations will be improved, while others decrease

Source: ECE – Ernst-August-Galerie Hannover, Hamburg 2008 (www.ece.de)
The Constitutional Court requires a more appropriate base for two property related taxes:

- **Inheritance Tax (Erbschaftsteuer)**
  - Plots: New tax base will be orientated according to the current value of land in each location (Standard Ground Value)
  - Bill is discussed in parliament, coming in force 2009

- **Land and Property Tax (Grundsteuer)**
  - It is discussed to tax the land according to the current value of land in each location (Standard Ground Value)
Market transparency

- In general:
  - Improving market transparency
  - Avoiding an overheating of the market

- Consequence:
  We need reliable current land values, especially in inner cities!
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  – Improving market transparency
  – Avoiding an overheating of the market

• Consequence:
  We need reliable current land values, especially in inner cities!

• Could we improve valuation in inner-city areas?
  Do we need additional indicators, e.g. data of the pedestrian flow in the shopping areas?
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Standard Ground Values

- Experts committees for valuation as public institutions (Gutachterausschüsse)
- Organized by the federal states, mainly at level of counties (Landkreise)
- Legal base in the Federal Building Code since 1960
- Advantage: complete collection of purchase prices
Standard Ground Values

- Experts committees for valuation as public institutions (Gutachterausschüsse)
- Organized by the federal states, mainly at level of counties (Landkreise)
- Legal base in the Federal Building Code since 1960
- Advantage: complete collection of purchase prices
- Instrument to afford market transparency
- Derivation from current transactions (Comparative method)
- Duty: Publishing average land values at least each 2nd year (Standard ground values) in maps
- Two types of Standard ground values are established:
City of Bonn
City centre
Standard Ground Values (2005)

Legend:

- 7.200: land value (€/m²)
- MK: zoning (core area)
- IV: number of floors
- 80 m²: shop floorspace

Source: Valuation Committee Bonn 2005
Standard ground value map

Zonal standard ground value

City of Hanover
City centre
Standard Ground Values (2008)

Legend:

9.200: land value (€/m²)
MK: zoning (core area)
3.0: floorspace index

Source: Valuation Committee Hannover 2008
Problems in determining standard ground values in inner cities:

– Quality of locations vary strongly within short distances

– Number of transactions per year is rather small, esp. transactions of unbuilt land are very rare

– Transactions of built-up properties:
  • Properties are very heterogeneous
  • Separation of the land’s market value is difficult

• Which methods are appropriate?
Valuation methods

• Return-orientated methods

  – The value of a location or property directly depends on the returns. The rents have to be appropriate for the typical land use in the location.
  – Rent column method:
    The average rent of all floors, related to the plot size, is used. Comparison to similar objects and their market prices.
  – Gross rent method:
    Comparison of the gross „ground floor“ rents related to the land prices and other influences, using regression analysis (cp. Dieter Kertscher, TS 7D)
**Valuation methods**

• **Return-orientated methods**

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  – Rent column method: The average rent of all floors, related to the plot size, is used. Comparison to similar objects and their market prices.
  – Gross rent method: Comparison of the gross „ground floor“ rents related to the land prices and other influences, using regression analysis (cp. Dieter Kertscher, TS 7D)

• Problems: Rents represent the market at the time of the contract; it often is difficult to get reliable information about the rents.
• **Interrelated expert method** (Delphi-procedure)
  
  – Based on expert knowledge of the local market players
  – Separate questioning of the valuation experts
  – Minimum 10 experts should be involved
  – Opinions are merged by median formation
  – Procedure used first by Reuter (2007)
Valuation methods

- **Interrelated expert method** (Delphi-procedure)
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- Problems:
  Results mainly depend on the experience of the experts;
  Difficult to get independant opinions of the experts
  Results are not transparent.
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  – Turnover of a shopping location depends directly on the frequency of customers
  – The number of pedestrians is a key factor for a retail development in the inner city (e.g. shop at the corner)
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• **Availability** of pedestrian flow data
  – The pedestrian frequency in about 150 German cities is measured regularly by private providers.
  – Counting takes place at the core location and at the most frequented time
  – Some cities or retail organisations instruct detailed countings, but without regular repetitions
The 10 most frequented shopping streets in 2007

<table>
<thead>
<tr>
<th>Rang</th>
<th>Stadt</th>
<th>Einkaufsstraße</th>
<th>Passantenfrequenz Samstag, 12.5.2007, 13.00 bis 14.00 Uhr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Köln</td>
<td>Schildergasse</td>
<td>14265</td>
</tr>
<tr>
<td>2</td>
<td>München</td>
<td>Kaufingerstraße</td>
<td>14010</td>
</tr>
<tr>
<td>3</td>
<td>Frankfurt</td>
<td>Zeil</td>
<td>13950</td>
</tr>
<tr>
<td>4</td>
<td>Stuttgart</td>
<td>Königstraße</td>
<td>10870</td>
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<tr>
<td>5</td>
<td>Hamburg</td>
<td>Mönckebergstraße</td>
<td>10485</td>
</tr>
<tr>
<td>6</td>
<td>Hannover</td>
<td>Bahnhofstraße</td>
<td>10410</td>
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<tr>
<td>7</td>
<td>Mannheim</td>
<td>Planken</td>
<td>10225</td>
</tr>
<tr>
<td>8</td>
<td>Berlin</td>
<td>Taumentzienstraße</td>
<td>9540</td>
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<tr>
<td>9</td>
<td>Nürnberg</td>
<td>Karolinenstraße</td>
<td>9520</td>
</tr>
<tr>
<td>10</td>
<td>Dortmund</td>
<td>Westenhellweg</td>
<td>9250</td>
</tr>
</tbody>
</table>

Source: Kemper's 2007
Pedestrian flow data

City of Dorsten
City centre
Pedestrian count

Legend:
- places of counting the pedestrian flow
- 60 % portion of max. pedestrian flow

Source: Valuation committee Dorsten 2006
Location classification

City of Dorsten
City centre
Location classification

Legend:
- **Red**: prime location
- **Pink**: Ia location
- **Yellow**: Ib location
- **Green**: II location

Source: Valuation committee Dorsten 2006
• **Advantages** of pedestrian flow data
  – Appropriate indicator for the economical and urban aspects of a location
  – Pedestrian flow data is the key factor to determine location classifications; others are e.g. the density of retail business or the portion of chain-stores.
  – A detailed network of counting points including repetitions are possible.
Pedestrian flow data

- **Advantages** of pedestrian flow data
  - Appropriate indicator for the economical and urban aspects of a location
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  - A detailed network of counting points including repetitions are possible.

- **Problems** of the indicator „pedestrian flow data“:
  - The daily, monthly and annual fluctuations in the pedestrian flow have to be considered.
  - In some roads, e.g. next to the railway station, the share of non-customers (commuters, tourists, pleasure-seekers) is to be mentioned
  - „Luxury-miles“ often are the best location, but may not represent the highest pedestrian frequency.
  - Expenditure in cost and time can be high for a detailed network of counting places
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Example: Osnabrück

Map of Germany

City of Osnabrück:

South part of Lower Saxony

Source: www.worldofmaps.net
Example: Osnabrück

Map of Osnabrück

City of Osnabrück:
163.000 inhabitants

Higher order centre

Source: www.osnabrueck.de
Example: Osnabrück

City of Osnabrück: Classification of retail locations in the city

Location classifications:

A-location (red)
B-location (pink)
C-location (yellow)
District location (green)

Source: Häder and Sieker 2007
Example: Osnabrück

Appraisals and market transactions (2000 - 2007)

Legend:

- 9 appraisals
- 23 transactions

Example: Osnabrück

City of Osnabrück
City centre
Standard ground values
Osnabrück (2007)

Legend:

MK: core area
MI: mixed use
IV: number of floors
g: closed type of coverage

Source: GLL Osnabrück 2007
Example: Osnabrück

Places of counting the pedestrian flow

1 - 30 Number of counting points

Example: Osnabrück

Results of the count

Legend:
- **persons per hour** (max. 2.570)
- **special count**

Example: Osnabrück

Advice for new standard land values
(combination of 3 approaches)

Zones vary in detail only

Tendency of the values compared to 2007:

South part of city: ↓

North part of city: ↑

Source: Alves, Jens: Diploma-Thesis 2008
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First results

- Standard ground values are suitable for describing the value of locations.
- None of the valuation approaches is optimal; each has advantages and disadvantages.
- Pedestrian flow data are a market-orientated additional indicator.
- Pedestrian flow data are an appropriate pattern to derive zones of comparable locations (relative values).
- Absolute values can be determined in combination with other approaches.
- An automatical counting process for pedestrian flows would help to use them widespread.
THANKS FOR YOUR ATTENTION!