Shrinking Cities in Europe - Problems of Data and Methodes

CIRES Training School 2011 – Mapping Urban Shrinkage

Manuel Wolff
Institute of Geography
Dresden University of Technology
Introduction – What is a Shrinking City?

The combined effects of deindustrialisation, suburbanisation, post-Soviet re-composition and demographic factors have produced a hitherto unknown model for decline. (Oswalt, 2006)
Introduction – What is a Shrinking City?

The term shrinking city usually describes a densely populated urban area that has on the one hand faced a population loss in large parts and is on the other hand undergoing economic transformation with some symptoms of a structural crisis. (Shrinking Cities International Research Network)

A Shrinking City can be defined as a city that has experienced population loss, employment decline and social problems as symptoms of a structural crisis. (Martinez-Fernandez et al., forthcoming)
Outline

- URBAN AUDIT
  Spatial reference - Indicators – Availability

- National Statistics
  Spatial reference – Indicators – Availability

- Conclusion and final remarks
Cities participating in the Urban Audit data collection

- Cities participating in the Urban Audit since 2003/2004
- Cities participating in the Urban Audit since 2005
- Cities participating in the Urban Audit since 2006/2007

URBAN AUDIT – Spatial Reference
URBAN AUDIT – Spatial Reference

Core City
URBAN AUDIT – Spatial Reference

Primarily determination of LUZ

Recalculation of LUZ after survey 2004

Carlquist (2006)
Demography (61 variables)
Social Aspects (46 variables)
Economic Aspects (78 variables)
Civic involvement (21 variables)
Training and Education (20 variables)
Environment (33 variables)
Travel Patterns (27 variables)
Information Society (14 variables)
Culture and Recreation (21 variables)

red/orange = decrease

green = increase
GDP Development in City, LUZ and NUTS2 (2001 – 2004)
red/orange = decrease
green = increase
GDP Development in City, LUZ and NUTS2 (2001 – 2004)

red/orange = decrease
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### URBAN AUDIT: Summary

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>- Central Database for European Cities</td>
<td>- Longitude analysis is difficult</td>
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<tr>
<td>- Availability of 2 spatial units</td>
<td>- Data gaps</td>
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<tr>
<td>- Variety of indicators</td>
<td>- Lack of metadata</td>
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**National Statistics**

? ? ?
National Statistics

- Spatial reference
- Time reference
- Data availability and survey methods
Different operationalization of cities

Different operationalization of cities

Administrative city definition
Different operationalization of cities

Functional city definition
Different operationalization of cities

Functional city definition
## 1. DEMOGRAPHIE

### 1.1 Bevölkerung
- **1.1.1 Gesamt**: k.A.
- **1.1.2 Altersgruppen**: k.A.
- **1.1.3 Qualifikation**: k.A.

### 1.2 Natürliche Bevölkerungsentwicklung
- **1.2.1 Sterbefälle**: k.A.
- **1.2.2 Geburten**: k.A.
- **1.2.3 Fertilität**: k.A.
- **1.2.4 Durchschnittsalter**: k.A.

### 1.3 Räumliche Bevölkerungsentwicklung
- **1.3.1 Migration**: k.A.
- **1.3.2 Altersgruppen**: k.A.
- **1.3.3 Qualifikation**: k.A.

## 2. ARBEITSMARKT

### 2.1 Erwerbstätige
- **2.1.1 Gesamt**: k.A.
- **2.1.2 Altersgruppen**: k.A.
- **2.1.3 Qualifikation**: k.A.
- **2.1.4 Wirtschaftssektor**: k.A.

### 2.2 Erwerbslosigkeit
- **2.2.1 Gesamt**: k.A.
- **2.2.2 Altersgruppen**: k.A.
- **2.2.3 Qualifikation**: k.A.
- **2.2.4 Wirtschaftssektor**: k.A.

### 2.3 Arbeitsplätze
- **2.3.1 Gesamt**: k.A.
- **2.3.2 Wirtschaftssektor**: k.A.

## 3. WIRTSCHAFT

### 3.1 Bruttoinlandsprodukt
- **3.1.1 Gesamt**: k.A.
- **3.1.2 Wirtschaftssektor**: k.A.

### 3.2 Anzahl Unternehmen
- **3.2.1 Gesamt**: k.A.
- **3.2.2 Wirtschaftssektor**: k.A.

## 4. SOZIAL

### 4.1 Haushalte
- **4.1.1 Gesamt**: k.A.
- **4.1.2 Struktur**: k.A.

### 4.2 Einkommen
- **4.2.1 Einkommen pro Person / Haushalt**: k.A.
- **4.2.2 Kaufkraft pro Person / Haushalt**: k.A.
- **4.2.3 Sozialhilfeempfänger**: k.A.
- **4.2.4 Relative Armut**: k.A.

### 4.3 Wohnungsmarkt
- **4.3.1 Immobilienwerte / -preise**: k.A.
- **4.3.2 Leerstand**: k.A.
National Statistics - Summary

- different operationalization of 'cities' with different thresholds
- heterogeneous time-reference of existing data
- different standards, methods, and variables
- in some countries poor availability of socio-economic data
How to combine indicators?
Combination of indicators?

High-low action for sample cities

Dortmund, 14.11.2011  CIRES Training School: Mapping Urban Shrinkage
Combination of indicators?

Demographic types in Germany

Combination of indicators?

Cluster of Shrinking Cities in Portugal

Source: Sousa (2010).
Combination of indicators?

Cluster of Urban Patterns in France

Combination of indicators?

What

Data

What

Reference

How to combine
Thank you very much for your attention