Porous Europe: European Cities in Global Urban Arenas

Ben Derudder & Peter Taylor

Globalization and World Cities study group and network (GaWC, http://www.lboro.ac.uk/gawc)
Rationale

Three basic observations:

1) Impact of globalization makes the notion of a ‘national’ or even a ‘European’ urban system problematic
   E.g., London, Brussels, Paris and Frankfurt as ‘international cities’

2) The rise of a ‘Network Society’: cities cannot be understood in terms of city-hinterland relations
   E.g., Frankfurt’s financial district has more functional connections to London, New York and Tokyo than to its proper hinterland

3) All cities experience globalization processes
   E.g., Frankfurt/London versus Darmstadt/Birmingham

⇒ Cities derive a significant portion of their functional importance from their insertion in a ‘world city network’ (WCN)
Systematic data problems in WCN research

How to examine European cities in the context of a WCN?

There are no publicly available data on inter-city flows between, say, Paris and New York or between Amsterdam and Hong Kong

Exception: airline data, but relation to the ‘urban economy’ is blurry at best
- ‘tourism problem’: Palma de Mallorca
- ‘regional problem’: Schiphol as a national airport
- ‘hub-and-spoke problem’: airline data do not feature actual inter-city flows

⇒ Rather than relying on existing data, an entirely new framework has to be built
Measurement of the WCN

Conceptual starting point: Saskia Sassen’s ‘Cities in a World Economy’

Basic argument: it is advanced producer services firms (APS firms) that are the key actors in WCN formation

APS firms provide legal, advertising, consulting,… services to multinational firms, international organizations, etc.

< their clients’ expectations, many APS firms have ‘gone global’, and their locational strategies are thereby heavily influenced by agglomeration economies in important cities → office network covering major cities in the world economy

Transnational inter-city relations < shared presences of APS firms
Fortunately, all capitals in the world have one thing in common.

In fact, it is not a thing, it is a name.
Arthur Andersen
Dresdner Bank
Clifford Chance
Booz Allen & Hamilton
Lloyd's
Specification of the WCN

• **Service value** $v_{ij}$: measure of the importance of the office of firm $j$ in city $i$

  Importance can be standardized between 0 and 5:
  - 0: no office
  - 5: global headquarters

• **Inter-city relation** $r_{ai,j}$: measure of the importance of the flows between offices in cities $a$ and $i$

  < heuristic // spatial interaction tradition: $r_{ai,j} = v_{aj} \cdot v_{j}$

• **Global network connectivity** $GNC_a$: measure of the importance of a city’s flows to all other cities $i$ across all firms $j$:

\[
GNC_a = \sum_{i,j} r_{ai,j}
\]
Measurement of the WCN

Measurement of the WCN < specification: a matrix of firms with information on their offices across world cities, whereby each cell describes the standardized importance of a city to a firm’s global service provision

• Choice of sectors (6): accountancy, advertising, banking/finance, insurance, law, management consultancy

• Choice of global service firms (100): a leading firm in the sector having offices in 15 or more different cities

• Choice of cities (315): capital cities of all but the smallest states plus many other important cities in larger states

• Assignment of service values for each cell < importance of a firm in a city (e.g. number of practitioners in a law firm) and their extra-locational functions (e.g. regional headquarters) < website APS firm

⇒ $315 \times 100$ matrix $V_{ij}$ with $v_{ij}$ ranging from 0 to 5
| Stad      | E&Y | AAA | MSI | AGN | BDO | GTI | HOI | KPM | SBT | ...
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----
| Amsterdam | 2   | 2   | 3   | 2   | 2   | 2   | 5   | 5   | 0   | ... |
| Atlanta   | 3   | 3   | 0   | 2   | 0   | 1   | 2   | 3   | 0   | ... |
| Bangkok   | 0   | 0   | 0   | 1   | 2   | 2   | 3   | 3   | 0   | ... |
| Barcelona | 2   | 2   | 2   | 2   | 0   | 0   | 2   | 2   | 0   | ... |
| Peking    | 0   | 2   | 3   | 0   | 1   | 2   | 2   | 2   | 0   | ... |
| Berlijn   | 0   | 2   | 2   | 2   | 0   | 0   | 3   | 3   | 0   | ... |
| Boston    | 3   | 2   | 0   | 0   | 0   | 1   | 0   | 3   | 2   | ... |
| Brussel   | 2   | 2   | 2   | 2   | 5   | 2   | 3   | 2   | 0   | ... |
| Boedapest | 2   | 2   | 2   | 2   | 0   | 2   | 2   | 3   | 0   | ... |
| Buenos Aires | 2   | 2   | 0   | 2   | 4   | 2   | 3   | 2   | 0   | ... |
| Caracas   | 0   | 2   | 0   | 1   | 2   | 2   | 2   | 2   | 0   | ... |
| Chicago   | 2   | 5   | 0   | 2   | 2   | 5   | 2   | 3   | 2   | ... |
| Dallas    | 0   | 2   | 2   | 0   | 0   | 2   | 2   | 3   | 0   | ... |
| Düsseldorf | 0   | 2   | 3   | 3   | 0   | 0   | 0   | 2   | 0   | ... |
|           |     |     |     |     |     |     |     |     |     | ... |
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Miami
BRUSSELS
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Exploratory analysis of the WCN

Detection of homogeneous subgroups < fuzzy clustering algorithm

→ cities with similar connectivity profiles are put together in the same cluster

C = 22

Main patterns:
• Hierarchical tendencies
  → cities with similar connectivities in the same cluster
• Regional patterns
  → cities from the same ‘region’ in the same cluster
• Interplay between hierarchical tendencies and regional patterns
  → less-connected cities have a more regional profile
European cities in the WCN

Well-connected European cities are defined by their global relations

→ London, Paris, Frankfurt,... are well connected to cities across the world

Secondary European cities have a more ‘regional’ profile...

→ ‘European clusters’ at different connectivity levels
→ cities from the new member states of the EU are well connected to other EU cities

...but there are some major exceptions

→ Commonwealth cluster with secondary British cities
→ cities from the new member states of the EU are at the margins of these clusters

⇒ A ‘Porous Europe’ when it comes to transnational inter-city relations
Conclusions

• Systematic assessment of the impact of globalization on European cities through their study in the context of a WCN

• Systematic data problems ask for alternative information sources

• 2000-2004

• CASS/Urban Audit
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