

# German Cities in the World City Network

## Some Observations

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**Abstract** This paper provides a brief critical appraisal of the relationality of German cities in the world city network. The paper is divided into four parts. After the introduction, part two highlights the major findings of each individual contribution to this special issue, and teases out the major patterns of German world city connectivity at both the international and domestic scale. This is followed in part three by a critical evaluation of the sum of all the individual paper findings, which comments on their aggregated contribution to three significant themes in world city studies: methods and empirics, theory and policy. The final part of the paper considers an alternative research agenda, calling for more qualitative research and engagement with in-depth, process-based studies of German world city networks, which will analyse both attributive and relational data.

**Keywords** World city network · Globalization and World Cities Research Network (GaWC) · Germany · Polycentricity · Advanced producer services

### Deutsche Städte im World City Network – einige Beobachtungen

**Zusammenfassung** Dieser Beitrag liefert eine kurze, kritische Betrachtung der Vernetzung deutscher Städte in das globale städtische Netzwerk. Er ist in vier Kapitel unterteilt. Nach der Einleitung fasst das zweite Kapitel die Ergebnisse der in diesem Schwerpunktheft enthaltenen Bei-

träge zusammen und eruiert die grundlegende Struktur der Vernetzung deutscher Städte auf der internationalen und nationalen Ebene. Daran anknüpfend liefert Kapitel drei eine kritische Bewertung der vorangegangenen Beiträge in Bezug auf drei wichtige Themen der Global-City-Forschung: Methoden und Empirie, Theorie und politische Umsetzung. Der letzte Teil des Beitrags enthält eine alternative Forschungsagenda mit der Forderung nach mehr qualitativer, umfassender und prozessualer Erforschung der Vernetzung deutscher Städte in das globale städtische Netzwerk, die sowohl attributive als auch relationale Daten berücksichtigt.

**Schlagwörter** Netzwerk globaler Städte · Globalization and World Cities Research Network (GaWC) · Deutschland · Polyzentralität · Wissensintensive Dienstleistungen

### 1 Introduction

Over the last decade, there has been a renaissance in the study of the connectivities and polycentricity of European cities in an age of economic prosperity and accelerating globalization (Hall/Pain 2006; Taylor/Ni/Derudder et al. 2011). In these extant studies as well as in others (for example Hoyler/Freytag/Mager 2008; Derudder/Taylor/Ni et al. 2010), German cities, especially those associated with the Rhine hinterland, Ruhr and Main, have displayed relatively mediocre connectivity scores in relation to other European and global cities, which is exceedingly surprising for Europe's predominant economy. Not even the introduction of the new European currency (the Euro) and the location of the European Central Bank, which theoretically placed Frankfurt at the epi-centre of the Euro-zone, did much to elevate

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the city's relational position in the world city network (see Beaverstock/Hoyler/Pain et al. 2005; Engelen/Grote 2009).

At the root of these relatively low connectivity scores is the structure of the German urban system which favours multi-functionality and polycentricity over primacy (see Blotevogel 2002). As Germany does not have the equivalent of a (capital) primate city like Paris in France or London in the United Kingdom, it does not have what could be described as a 'truly' global city, and thus its geo-economic reach in the world economy is spread between several domestic cities rather than being channelled through one or two geo-economic powerhouses (including all the agglomeration economies that follow in the material and immaterial spheres of capital and labour).

The complexities of the German urban system, therefore, and their place in the ever changing world city network are fascinating from both an intellectual and empirical viewpoint. Intellectually, Germany's polycentric or multi-functional city system, which lacks 'spikes' and primacy, provides an innovative 'laboratory' to rework seminal concepts on the global reach, command and relationality of world cities in a new spatial logic which is increasingly being restructured by technological change and the dynamism of emerging markets. Moreover, at an empirical level, the ability to examine the networks of a single city (e.g. Frankfurt) or cities in combination (e.g. those in the Rhine-Ruhr or Rhine-Main regions), can generate innovative evidentially-based findings to advance understanding of the global positionality and relationality of multi-functional world cities in a structure that lacks degrees of primacy and concentration. The collected findings from these papers make several significant intellectual and empirical interventions which refine explanations of polycentric German cities (regions) in the world city network.

The remainder of this paper is divided into three substantive sections. In Sect. 2, following this introduction, it is important to briefly highlight the distinctive and innovative findings of each paper presented in the special issue, providing an accumulative review of German cities in the world city network. After such a review in Sect. 2, in Sect. 3 of the paper one can then critically evaluate the salient conceptual and empirical characteristics of each contribution, and also reflect on the sum or accumulation of all of the individual contributions, which will present a reflection on German cities in the world city network. Finally, in Sect. 4, I present a number of challenging questions regarding German cities in a world city network, and finish with a brief alternative agenda for future research, which addresses both methodological and conceptual challenges as we are entering a new period of resilience in the world economy.

## 2 German Cities in the World City Network—My Interpretation

The editorial by Taylor and the contribution by Hoyler provide an overview of German cities in the world city network, followed by several others using an approach of the Globalization and World Cities Research Network (GaWC) or a GaWC-like approach, both conceptually and empirically, to place German cities in connectivity tables, generated from data on advanced producer services or research and development and high technology clusters. However, Klagge and Peter use a qualitative strategy to illustrate process-based findings on connectivities within/between German financial cities. The significant findings from each paper will be reviewed in turn.

Hoyler draws on the global perspective of the Globalization and World Cities Research Network to analyse German inter-city relations in the field of advanced producer services, making three significant conclusions. First, the integration of German cities in the world city network are relatively lower than expected (Frankfurt is globally ranked 32nd; Berlin 55th; Hamburg 60th; Munich 67th; and Düsseldorf 76th). Second, from an intra-German city relational perspective, the prospect of competition and/or specialization between cities has produced 'shadow-effects', e.g. Düsseldorf vs. Cologne, Essen and Dortmund; and Berlin vs. Leipzig and Dresden. Third, with few exceptions, recently there has been a relative and absolute decline in the connectivity of German world cities in the world city network. In essence, German world cities are losing out to the 'movers' and 'shakers' in the rest of Europe, North America and the Asia-Pacific region.

Lüthi, Thierstein and Bentlage have investigated the interlocking networks of 270 advanced producer services and 210 high tech firms in the German knowledge space economy. They identify an advanced producer services global urban functionality with Hamburg and Frankfurt, flanking London, New York and Paris. But, interestingly, their similar analysis of high tech firms point to a more global pattern, with connectivities reaching across to Shanghai and Singapore, Vienna, Budapest and Prague, and Sao Paulo. At the national level, these authors reaffirm the position of the 'big six', Hamburg, Frankfurt, Munich, Berlin, Stuttgart and Düsseldorf, atop the German 'urban circuit'. A significant feature of Lüthi, Thierstein and Bentlage's contribution is the depth and innovation of their conceptual analysis, which goes beyond the world city network discourse and evaluates the pillars of knowledge with urban functionality and relationality.

Growe and Blotevogel continued the analysis of knowledge at the fulcrum of the reproduction of the German world city network, by focusing on an attributive approach which analysed the spatialities of Federal Employment Office data

for knowledge-based professionals between 1997 (2.9 million workers) and 2007 (3.1 million workers). Using the methodology of the Globalization and World Cities Research Network, they identified two significant findings: eight knowledge hubs exist in the German urban system, with a western-bias (Rhine-Main, Munich, Berlin, Hamburg, Stuttgart, Cologne, Düsseldorf and Ruhr); Munich and Cologne were the two most dynamic growth hubs for knowledge professional employment between 1997 and 2007, with evidence of stagnation in the east (Berlin, Chemnitz). The value of this study for the generic analysis of German world cities is that attribute data of employment share and change in knowledge-intensive professionals illustrate the significance of the asset-base of cities that underpin the magnitude of relationality and flow. As I have argued previously, it is important to have a conceptual and empirical understanding of the composition and scale of the city's professional labour market whose decision-making and control drives the establishment of world city relationalities and connections (see Beaverstock 1996; Beaverstock 2007).

Münter's investigation of the poly- and mono-centricity of German metropolitan regions (functional urban areas) in the world city network is derived from the standard GaWC-methodology which analysed connectivities between 175 firms  $\times$  192 German cities. The most significant finding to emanate from this contribution is the connectivity standings of German multi-core polycentric metropolitan regions (like Rhine-Ruhr) and the peculiarities of these places where there is no single dominant core (in the case of Rhine-Ruhr, the complementarity of Düsseldorf and Cologne).

In a departure to all of the preceding papers, Klagge and Peter's study of inter-city urban relations, in this case in the German private equity industry, is based on studying agency, the embodied relations between financial centres rather than modelled network relations between firms. This process-based approach not only shows the complexity of relations between German financial centres, but also illustrates the unevenness of inter-dependencies of 'knowledge flows' generated between individuals and firms over space and time. The example of Munich's private equity business brings together wider concepts of the space of flows and the critically important (and perhaps forgotten) aspect of the historical embeddedness (and accompanying social and cultural relations) of local assets and geoeconomic tendencies.

### 3 Revisiting Methods, Results, Concepts and Policy

Accordingly, on the whole this compilation of papers offers important insights into three major tenets of world city research: methods and empirics; theory and concepts; as well as usefulness to policy-makers. However, as I will argue at the end of this contribution, the compilation of papers also

missed the opportunity to offer more innovative readings of German cities in the world city system. Methodologically, the 'standard' GaWC-approach used in many of the papers, or a variant thereof, does offer an immediate 'snapshot' of a hierarchy of inter-city relations, drawn from surveys of advanced producer services and/or high technology firms, and analyses of 'official data' sources. For the intention of identifying changes in the German urban system, the compilation's focus on identifying patterns at the expense of process presents a methodology which is fit-for purpose. In addition, in some of the papers the analysis of German federal data or data derived from other official sources does complement the GaWC-approach and identifies patterns at the regional and/or city-region scale. Of course, the empirical approach of the Globalization and World Cities Research Network does have its detractors from both a conceptual and empirical stance (for example, Smith 2003; Robinson 2006), but in this context the subtleties of change in the German urban system are identified with aplomb. Interestingly, however, Klagge and Peter's qualitative approach does show how vital it is to use social surveys like interviews to explain processes of unravelling the complexities of relationalities between cities in a changing global society. Moreover, such an approach directly takes stock of the importance of a city's assets (attributes) and embedded social and geoeconomic relations as a foundation of its gravitas (or not) in the world.

An analysis of the cumulative findings from the papers, all dominantly influenced by the empirical approach of the Globalization and World Cities Research Network, offers two significant insights into understanding the inter- and intra-positionality of the current German urban system in the world city network. First, at the international level, German cities like Frankfurt, Berlin, Hamburg, Munich, Düsseldorf and Stuttgart are relatively lowly ranked in the world city relational tabulations, irrespective of the use of advanced producer services or high technology as the benchmarks for analyses. I suggest that the key to these relatively lower rankings is the structure of the cities internal assets and their tendencies to specialise in distinctive functional capabilities, which deter the synergies and concentration of connections experienced by Europe's more primate metropolises (like for example London, Paris, Moscow). In essence, the relatively low connectivity of German world cities is a structural product of their horizontal polycentricity and tendency not to be a 'master of all trades' (as previously noted by Blotevogel 2002 or Beaverstock/Hoyler/Pain et al. 2005). Second, interestingly, at the intra-national level, within the German urban system, whilst the cities cited above again dominate the internal structure, evidence from the individual papers, focusing on advanced producer services and high tech, show a marked pattern of inequalities in connections between 'Western' and 'Eastern' cities. Obviously,

more structural issues come into play, like the embeddedness of foreign direct investment in former West Germany and recent trends in intra-migration flows of labour from 'East' to 'West'; however, these intra-national trends must trigger concerns for policy-makers at all scales of German governance.

At a theoretical or conceptual level, the compilation of papers does little to advance the understanding of world city networks in the urban system because the overriding emphasis is on measuring structure at the expense of agency. This conclusion does not come as a surprise, given that the methodological focus of almost all of the papers is empirical, based on uncontested explanations of the world city network. The approach of studying world city networks from 'above' draws on a well-tested theoretical and empirical foundation which has a world class track record of identifying numerical change in the system i.e. structure, but has remained in a somewhat theoretical impasse since the mid-2000s. The compilation of papers identifies certain hierarchical or connectivity changes in the German urban system over the last decade or so, but says very little in process-based discussion to explain such changes, with respect to unlocking the complexities of certain knowledge networks, their geometries of power-relations, and differences in locational preferences and traded and untraded interdependencies. In essence, the impasse in an advancement of theory accounting for the genesis of and nuances in the world city network has been reproduced by a reluctance of the key proponents of the model as well as the majority of authors in this special issue to focus their energy on researching agency in the networks. It is important to remember that these German world city networks and connectivity scores in almost all cases are based on expected flows and do not measure actual or real flows. More informed research on current agency and agents are now the key to unpacking the realities of the German and all world city networks, as will be argued later.

Quite a frustrating absence from this compilation of papers on changes in the German cities in the world city network is the lack of forthright, process-based findings which intervene with policy formation and debate, both at the individual city and urban-system scale. Much has been written in recent times on polycentricity, territoriality and urban governance, particularly in the mainland European context (see for example Hall/Pain 2006). In this accumulated body of published essays it would have been valuable to read how these detailed findings on the positionality of German cities in advanced producer services and high technology—two vital sectors of the knowledge economy—can assist or detract from driving the national economy and in providing solutions to the perceived spatiality of the West vs. East 'divide' in Germany. These essays, as a collective body of knowledge and understanding on German cities in

the world city network, makes few policy related interventions, which comes as a surprise given that the subject of study focuses on two significant drivers of economic development in the knowledge economy: first, banking, finance and professional services; and second, research and development and high-technology.

#### 4 An alternative Research Agenda

In hindsight, it is very easy to make critical comments on a compilation of essays on a given subject from the perspective of the 'outsider' or discussant. However, it is very important to stress that this compilation of essays does exactly what it says on the tin: it provides insightful and original empirical interventions into measuring and understanding the changing connectivity of German cities in the world city network. Given the subject of each individual paper, their theoretical and methodological approach, and substantive findings, there has been much substantial material offered for debate about the position of German cities in the broader world city network and its domestic urban system.

But, could the findings of the body of work have been different? What would have been the outcome if there had been several empirical interventions on, for example, the creative industries or new media? Or the locational strategies and organisational networks of logistics, distribution and wholesale activities? Or international hotels? Or on transnationalism and the transnational communities of foreign workers that populate many German cities? What is the position of German cities in the world city network of remittance flows? What would have been the outcome of the collective analysis if the dominating methodological approach had been qualitative and 'from below' (Beaverstock 2007)? These questions are important both from a theoretical and methodological perspective, and they must be considered in some capacity when looking for more than an incremental change in understanding the dynamism of world city networks.

Over the next decade, in the context of understanding the positioning of German cities in the ever changing world city network, based on the salient findings of these papers and my own thoughts, I see five major priorities for such inter-city research, all encapsulated in the call for the study of agency:

1. To embrace innovation in the conceptual approach of studying inter-city relations by moving away from the firm and office/subsidiary as the main unit of analysis by considering the agency of the individual and the ways in which firms penetrate new markets through more flexible modes of 'non-presence' (e.g. strategic alliances/networks; franchises; business travel) rather than 100% wholly-owned subsidiaries and office complexes.

2. To accept the qualitative approach as a means of collecting process-based findings on different inter-city attributes and relationalities, which can add significant originality and knowledge to understanding the dynamics of the world city network from 'below'.
3. To undertake extensive quantitative and qualitative research on German world cities in the West and East of the country, both from inter- and intra-national perspectives. Such new and innovative findings would enhance the contribution and impact of this social science research with policy makers within and outside of Germany.
4. To focus on attributive and relational studies on Frankfurt, Berlin, Munich, Hamburg, Düsseldorf and Stuttgart, both from a quantitative and a qualitative approach, embracing studies of a wide range of knowledge industries and 'non-presence' geographies, which in themselves generate dynamic and ephemeral networks of relations and flows.
5. To engage in directed research on German cities in the world, specifically investigating the relationality and connectivity of their foreign workers and immigrant communities.

As in the rest of Europe, and beyond, the dynamism, buoyancy and performance of Germany's cities in both the national and international context will be pivotal for the nation's growth rates and position in the new geoeconomic landscape of the G20 and world economy.

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