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A New, Global Centrality of Post-Suburbia?

From Suburbia to Post-Suburbia

- The relentless expansion of suburbs has become an enduring phenomenon in Europe. For more than three decades chaotic and disorderly spatial developments have taken place on the peripheral zones of cities. Here the question arises as to whether and how something specifically new has been created out of this "Zwischenstadt" or "intermediate city" (Sieverts, 1998); Los Angeles with its multiple centers and sprawling spatial structures in particular, and major US-cities in general became archetypical for late twentieth century urbanization. In this context, terms like "technourbs" (Fishman, 1987), "edge city" (Garreau, 1991) or "exurbia" (Soja, 2000) paraphrase developments, that can be subsumed as "post-suburban" (Dear, 2003; Soja, 2000). In general, post-suburbanisation is characterized by urban processes that contain not simply the homogenous suburbanization of housing, but also a mix of uses, such as significant economic activities in the service sector (Phelps *et al.*, 2006).
- But does this apply to Europe as well? To what extend do the terms and definitions of the so-called "Los Angeles school" describe recent urbanization processes on the outskirts of European cities? Soja stresses that the spatial dynamics of Los Angeles can occur in any other city, but on a different scale and in different ways (Soja, 2000). The problem behind a direct transfer of these concepts can be illustrated in the case of the term "edge city": Garreau's five criteria, which he uses to define the US-edge city, are primarily based on

the form, but not on the function of these new urban spaces (Garreau, 1991). This fact leads Phelps *et al.* (2006) to the assumption, "that the term "edge city", despite its loose definition, is now so firmly invested with a sense of the form that its use has obscured points of potential comparison between post-suburban developments in other settings" (Phelps *et al.*, 2006, p. 40).

- Focusing on the functions of suburban areas, the question of dependence or independence from the core city becomes crucial. While classic suburban regions have seemed dependent on developments towards the core (Fishman, 1987), recent post-suburban spaces show a more complex relationship towards the core city: for US-cities, studies show a higher level of economic job growth in the outskirts of metropolises which indicates a growing independence from the core (Phelps *et al.*, 2006). Beside this new economic suburban centrality, studies show for German cities, at least a growing emancipation in socio-economic functions: in its function as the centre of working places, supply networks and leisure activities, it has developed a "radiation intensity" of its own (Brake, 2001, p. 18), spreading its influence out into the bordering areas. Against this background it is necessary to clarify whether post-suburbia actually hold functions previously reserved for the core city (Borsdorf, 2004).
- In short, post-suburban developments seem to be characterized by an emancipation from the core city. Has suburbia developed into more than an important though subordinate supplement of the core city? Can a new centrality be spoken of? On the one hand, postsuburban developments cannot been seen as independent of the core, which supports the outskirts e.g. through the benefits of agglomeration (Phelps et al., 2006, p. 30-31); but on the other hand, post-suburban zones show an increasing economic centrality, even within the globalized economy. In this context, Kunzmann (2001) stresses the idea of an urban archipelago, where the global functions of the main city are concentrated while the suburban spaces simply serve the purpose of "lighting the stage of the metropolis, so that it can shine in all its glory. It is the functional, dull backstage of the opera, without which no performance can take place" (Kunzmann, 2001, p. 215-216). Employing the same metaphor, the central question of this study is whether suburbia has equally become a small stage for the global economy, even if on a smaller scale. More precisely - which role do the surroundings of Vienna play with regard to the globalisation of the city? Although Vienna is an over-sized agglomeration like many other European cities, there are good reasons to query the global centrality of (post-?) suburban areas: During the 1990s, two incidents provoked meaningful structural changes within Vienna: first, was the demise of the Iron Curtain which initiated the political transformation in the countries of Central and Eastern Europe, while the second was Austria's own entry into the European Union. Parallel to these developments, which led to an increasing internationalization of Viennese firms - especially in Eastern Europe (Musil, 2005) - suburbanization processes displayed an increased rate of growth (Fassmann, 2004). In view of the overlapping of these two developments it makes sense to scrutinize post-suburban tendencies in the agglomeration of Vienna.
- Although post-suburban areas show a growing economic dynamic and, furthermore, an enlargement of economic activities as well as a location that competes for global investments, little attention seems to have been paid to the linkage of global city theory and post-suburban tendencies (Phelps *et al.*, 2006, p. 12). Global city research is traditionally focused on the core city, in particular on the Central Business District (Sassen, 1991), although it has been established that there is no longer a compelling

relationship between spatial centrality and global centrality, which Sassen confirms: "In the past and actually till recently the "centre" was synonymous with "city" or "CBD". The spatial correlates of the "centres" can now appear in different spatial structures. It can be the CBD, as in New York, to a large extent, or it can present itself in an urban landscape in the form of a network of nodes of intensive economic activity..." (Sassen, 2000, p. 204-205). As a matter of fact it can be observed - not just in the edge cities of the USA, but also in the surroundings of European metropolises - that high value producer service branches as well as headquarters of multinational enterprises (MNEs) can be found in the suburban regions to an increasing extent (Beauregard and Haila, 2000, p. 28): it seems, contrary to the assumption of Kunzmann, that a form of emancipation is underway: core city and suburban regions do not seem to differ in quality, merely in the quantity of their integration into the global economy: "...in fact bring to the suburban location the same international business firms, the same professional consulting activities, ..., that the central city has, if on a smaller scale" (Marcuse and von Kempen, 2000, pp. 255-256). But cautiousness is necessary: even in US-cities, independent economic dynamics in postsuburban areas is [sic!] more the exception than the rule (Phelps et al., 2006, p. 38); in our context it is appropriate to ask for tendencies of emancipation in a complex relationship between core and suburban - probably post-suburban - areas.

How to Measure the Global Integration of an Agglomeration

- Which indicators, therefore, should be used for studying and analysing the integration of a metropolis into the global economy? Drawing on Global City theory makes sense in this context, as this approach connects global processes with urban development (Gerhard, 2004). The Global City approach emphasizes the network-like character of the world's economy, where cities hold a position of global significance and are connected by flows of information, goods, services, people and capital (Friedmann, 1986). Not just the location factor, but also the extent of integration, determines the importance of a city: "Cities are in direct and frequent contact with one another through the various city-to-city flows... It is our view that the nature of these interrelations (e.g. frequency, strength, importance, dominance/subdominance) undergrids the structure of the world system" (Smith, Timberlake, 1995, p. 290). In order to comprehend these global "interrelations", various indicators were drawn upon: international air-travel statistics (Keeling, 1995) as well as relations in culture or media sector (Taylor, 1997); but the probably most important indicator is the networks firm within the high-valued producer service sector (Taylor, 2004). The crucial role of these branches can be backed up by two arguments: first, these firms possess the specific knowledge in law, finance, marketing and of computing that allows multinational enterprises the management of globalisation, the worldwide decentralisation of production and the organisation of global commodity chains (Parnreiter et al., 2005). Second, the high degree of specialisation of these firms leads to a concentration in a small number of exclusive cities, where such specific knowledge is available. So, beside Taylor's firm-network data, the extent of high value service sector has become a crucial indicator for the global importance of a city (Taylor, 2003).
- 7 A further indicator of high theoretical importance but low empirical basis are international capital flows; they play a crucial role for the hierarchical interrelations of the global city network; in this context, as Sassen stresses: "The international mobility of capital contributes specific forms of articulation among different geographic areas and

transformations in the role played by these areas in the world economy" (Sassen, 1991, p. 169). Furthermore, Friedman defines Global Cities as a hub for global capital: "Key cities throughout the world are used by global capital as "basing points" in the spatial organization and articulation of production and markets. The resulting linkages make it possible to arrange world cities into a complex spatial hierarchy." (Friedmann, 1986). The question that arises here is the following: Which form of "global capital" is useful in comprehending the relationship between global cities?

Foreign direct investments hold just a small and even stagnating share of worldwide capital flows (Unctad, 2001); nevertheless, it is meaningful to use this type of global capital for analysing the extent of integration in global city network. While the dominating form of global capital mobility, portfolio investments, shows a high volatility, FDIs are more stable, as the crisis in Asia at the end of the 90s demonstrated (Bellak, 2000; Husa and Wohlschlägl, 1999). This assumption depends, above all, on the circumstance that FDIs are made on behalf of investors for strategic, long-term reasons and not merely speculative ones. UNCTAD as well as the Austrian Federal Bank (OeNB) define it in the following way using the term "strategic control": "In this sense foreign direct investment capital is understood to mean cases in which investors intend, with an enterprise, to establish and maintain a long-term economic relationship in a country, whereby they have, at the same time, an intention of influencing management." (OeNB 2004, 6). It is thus no surprise that foreign direct investment can be understood as being not merely an indicator of the economy or location, but also a manifestation of spatial actions by global companies (Heiduk, Kerlen-Prinz 1999).

The Suburban Region of Vienna: a Location with Global Centrality?

- The main research question of this study aims to clarify, whether and to what degree Vienna's surroundings make a contribution to the global integration of the whole agglomeration. The indicators drawn upon for this are the producer service sector and headquarters of multinational enterprises (MNEs). Is it possible to speak of a process of emancipation which has led to a albeit weaker global centrality of Vienna's surrounding?
- The delimitation of suburban regions has become an important field of research. Different approaches lead to different findings, depending on the method used (figure 1). International comparative studies harmonizing delimitation make this point clear (Bachmann, 2003). Not without good reason Siebel wrote: "The European city is difference" (Siebel, 2004, p. 12). The spatial structures of the European urban landscape are too diverse and heterogeneous to be systematically classified according to morphological criteria, such as the N.U.R.E.C. method (Leichtfried, 2001) suggests.

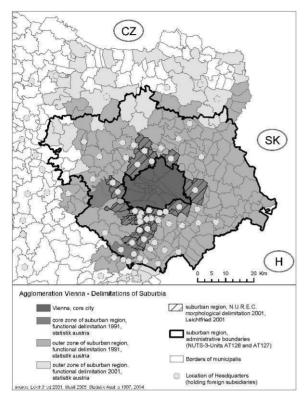


Figure 1. Delimitation of Vienna.

Source: Leichtfried, 2001; Statistische Nachrichten, 1997/2; Statistik Austria 2004

- 11 For this study the agglomeration of Vienna is defined by municipal boundaries, whereas the suburban region is drawn by the two nuts-3-units Vienna North (AT126) and Vienna South (AT127); the core city is defined by the unit Vienna (AT130). As can be seen in figure 1, the administrative units lead to a generous delimitation for the agglomeration of Vienna. In spite of our method on firm date, this delimitation makes more sense than a more narrow one (like e.g. N.U.R.E.C.-method in figure 1): the settling of firm branches aims to an increasing degree at the greater suburbia due to sufficient quantities of cheap building land as well as good connection to high-ranked transport infrastructure.
- To return to the initial question: how to assess the role of Vienna's suburban region for the whole agglomeration? The extent of tertiarization of course, for the high value service sector and the outflow of investments, reflected in headquarters located in the agglomeration of Vienna, are the indicators used in this work.

Dynamic suburbia versus stagnating core? Tertiarization in Vienna's suburbia

Over the last decades, Vienna's suburbia experienced a permanent growth of its resident population. In the early 1980s – comparatively late in comparison to other cities – the main development in suburbanization started. In 1961, the population of the whole agglomeration comprised 2.05 million, whereby the relationship between core city and suburbia was 80: 20. By 2004, the population had increased up to 2.21 million, whereby the net increase (about 165,000) took place exclusively in the suburbia. As a consequence of this and the migration within the agglomeration, the relation turned over to 73: 27.

- The suburbanization of business and firm activities lagged behind this demographic development: in 1991, less than one fifth (19.0 percent) of the agglomeration's jobs were located in the suburbia, rising only slightly prior to 2001. The relation between core city and suburbia was 79: 21. In contrast to the demographic development, the growth of jobs was primarily concentrated on the core city: two thirds (66 percent) of a total of 116,000 new jobs were located in the core. Regarding respective industrial relocations from the city towards peripheral zones since the 1980s (Mayerhofer and Palme, 1996), the total share of firms in suburban areas is below the average of the whole agglomeration. Surveys on service firms have shown that in contrast to industry, relocations in the tertiary sector play just a minor role. If relocation takes place, the company moves inside the same region (core city or suburbia) (Bachmannn, 2003).
- The poor level of business suburbanization is reflected in an asymmetric relation of commuters between core city and suburbia. In 1991 about 87,000 employees commuted from suburbia towards the core city, ten years later there were already 99,700 commuters. In the same period of time, the number of commuters in the opposite direction increased from 34,000 to 44,000. Although the number of suburbia-orientated commuters is growing significantly faster, the dimension of both regions must be considered: while commuters from the core to the suburbia just make up 5.3 percent of all jobs available in the core, the commuters in the opposite direction comprise nearly half of all jobs that are located in the suburbia (2001: 46.5 percent). In terms of availability of jobs, an emancipation of suburbia cannot be spoken of.
- The question that has to be answered in this context is the following: do we find the kind of service firm that is relevant for the management of globalization (Taylor, 2004, p. 34)? Or are they just helping to provide shopping-center functions (consumer services) for the core city? Asked in another way: What role do high value services like banking and finance, real estate or data management play?
- 17 Although, as already mentioned above, the suburban region makes up approximately one fifth of total employment in the agglomeration of Vienna, the high value service sector seems - compared to this value - to be significantly underrepresented (11.7 percent, see table 1). The high growth rates for high value service jobs in the suburbia (93.9 percent in 10 years) led to a small increase in its importance for the whole agglomeration. The spectacular growth in a few sectors, like data management (plus 395.7 percent) or banking related services (plus 276.0 percent) cannot hide the fact that this growth is not relevant in absolute terms: the increase of high value service jobs was about 11,000 in the suburbia, but 60,500 in the core city. Furthermore, high value service jobs became a dominating "job machine" in the 1990s: 78.6 percent of job growth belonged to this sector, while in the suburbia their share amounts to just 28.5 percent; most of the new jobs in suburbia are related to consumer service (like trade) or industry. Although the term "producer service" has a high theoretical relevance (Sassen, 1991) and has become an important research field, it has to be considered that only part of this sector is really "high value" whereas the other part includes services like security service, facility management or employment agencies. The share of definite high value producer service jobs of the total number of producer service jobs is just 54.3 percent in the core city.

Table 1. Number of employees for selected economic sectors in the agglomeration of Vienna for 1991 und 2001 (source: Statistik Austria, 2005).

	core city			suburbla			suburbia share on total (%)	
	1991	2001	growth (%)	1991	2001	growth (%)	1991	2001
banking	28.693	27.837	-3,0	2.702	3.075	13,8	8,6	9,9
insurance	12.727	11.418	-10,3	696	883	26,9	5,2	7,2
service related to banking	2.294	4.329	88,7	186	701	276,9	7,5	13,9
real estate	6,774	13.098	93,4	498	1.558	212,9	6,8	10,6
rent	2.237	3.051	36.4	483	950	96,7	17,8	23,7
data management	7.513	23.686	215,3	555	2.761	397,5	6,9	10,4
research and development	1.906	4.627	142,8	682	931	36,5	26,4	16,8
producer service	51.503	86.111	67,2	6.095	12.205	100,2	10,6	12,4
high valued service sector	113.647	174.157	53,2	11.897	23.064	93,9	9,5	11,7
total	744.449	821.458	10,3	175.371	214.503	22,3	19,1	20,7

The Suburbia of Vienna as a Location for International Company Headquarters

Core City Versus Suburban Region

- According to tax statistics, the number of large enterprises² within the agglomeration of Vienna was 12,554 in 2000, one fifth (18.8 percent) of which were located in the suburban region. In the same year 1,117 Multinational Enterprises (MNEs) firms with subsidiaries in one or more foreign countries were listed by the Austrian Federal Bank. Thus, just a very small part of all Viennese companies hold foreign direct investments: 8.9 percent of large enterprises, but just 1 percent of all companies that are located in the agglomeration of Vienna (115,000). The focus of the following analysis will be on that little group of MNEs or company headquarters.
- The increase of the number of MNEs in the agglomeration of Vienna must be seen in the light of two crucial geostrategic changes: first the fall of the Iron Curtain and the political transformation in the countries of Central and Eastern Europe, and Austria's own entry into the European Union two incidents that led to a fundamental change in Vienna's economic situation and a reorientation of companies from the Austrian domestic market towards the European market (Mayerhofer and Palme, 1996; Schmee and Weigl, 1999). The sharp rise of companies which hold foreign subsidiaries during the 1990s (figure 2) is a useful indicator of the strong effect of this phase called "Internationalization": within 13 years, between 1989 and 2001, the number of Vienna-based company headquarters increased by 200 percent; whereby the core city showed a slower growth (193 percent) than suburbia (273 percent). Nevertheless this is a significant growth, the suburban region as a location for headquarters lagged behind its level of suburbanization in population and jobs.

Headquarter core city ■ suburbia —O— suburbia share of total (%)

Figure 2. Number of headquarters, located in core city and suburban region, between 1989 and 2001.

SOURCE: 0ENB, 2005; MUSIL, 2005B

Volume and structure of foreign investments

- In the period of research, the number of MNEs rose sharply. Regarding the volumes that have been invested by companies from Vienna in foreign locations, it is possible to speak of a "take off": the total Viennese equity capital stock, invested on subsidiaries was about 1.3 billion Euros in 1989 and had risen up to 17.9 billion by 2001. Just 5,6 percent or 1.0 billion Euros has been invested from suburban headquarters.
- The structure of investments shows significant differences between the two regions: the average invested equity capital per headquarter runs up to 7.6 million Euros for the whole agglomeration, whereas the value for MNEs located in the suburban region is just about 3.4 million Euros (table 2). Furthermore, it can be ascertained that the headquarters in the suburban region have on average significantly lower capital intensity (equity capital per employee). Surprisingly, capital intensity tells us nothing about the profitability of an investment: the share of profits on equity capital makes up 6.3 percent for headquarters located in the suburbia, whereas it is just 4.9 percent in case of the core city. Although foreign investments from suburbia are at a low level, they seem to be more successful if profitability can be accepted as an indicator for success in case of a firm's internalization strategy.

Table 2. Structural indicators of investment flows (accumulated values 1989 to 2001; ec= equity capital).

	agglomeration	core city	suburbia	suburbia (share of total, %)
Headquarters (number of)	11.147	9.626	1.521	13,6
industry	3.461	2.953	508	14,7
service	3.411	2.803	608	17,8
high valued services	4.275	3.870	405	9,5
invested equity capital (in Mio. Euro)	84.822,6	79.597,4	5.225,2	6,2
profits (in Mio. Euro)	4.214,6	3.883,7	330,9	7,9
rentability (profits by equity capital, in %)	5,0	4,9	6,3	-
employment at subsidiary	894.692	745.002	149.690	16,7
capital intensity (1.000 Euro per job)	94,8	106,8	34,9	1=1
size of subsidiary per HP		· · · · · · · · · · · · · · · · · · ·	·	
investment volume (in Mio. Euro per HQ)	7,6	8,3	3,4	-
jobs at the subsidiary (per HQ)	80,3	77,4	98,4	1=1
jobs in high valued service sector		•	·	•
jobs at subsidiary	213.838	212.132	1.705	0,8
investment volume (in Mio. Euro)	58.441	56.190	2.252	3, 9

SOURCE: OENB, 2005; MUSIL, 2005B)

As already established, the suburban region shows a low share on jobs in the sector of high value services (see table 1 in chapter 2.1); this fact is further corroborated by the employment structure of Viennese company headquarters. Over the whole period of research, the low value service sector was dominant (608 headquarters or 40.0 percent) in suburban headquarters, especially with regard to the trade sector. While high valued producer service headquarters are underrepresented in suburbia, they hold the largest share in the core city (3,870 headquarters or 40.2 percent).

Headquarters located in the core city and the suburban region implement different strategies for internationalizing, which can be seen from the employment structure of the foreign subsidiaries (table 3): in the case of suburban headquarters, most jobs are related to industry, even with an increasing share (2001: 54.2 percent); combined with consumer service (trade), these two sectors hold 92.9 percent of all jobs at subsidiaries. The branch-specific investment volumes underline the different foci; furthermore, they explain the different capital intensities of investments from core city and suburban headquarters: while first concentrate on capital intensive branches (banking and finance, producer services, further high value services), the latter concentrate investment capital on labour intensive sectors (industry and trade).

Table 3. Branch structures of subsidiaries for employment and investment (total value) of core city and suburban region.

	core city				suburban region			
	jobs (%)		equity capital (%)		jobs (%)		equity capital (%)	
	1991	2001	1991	2001	1991	2001	1991	2001
industry	51,9	39,3	30,8	23,0	48,7	54,2	55,7	48,4
trade	23,7	12,1	6,5	8,6	35,9	38,7	22,7	24,1
banking & finance	7,4	8,9	12,0	4,7	0,0	1,7	0,0	16,7
computing, R&D	0,1	0,5	0,0	0,2	0,0	0,0	0,0	0,0
producer services	1,0	10,7	20,6	29,8	2,0	0,2	17,4	6,8
other services	15,9	28,5	30,1	33,6	13,4	5,2	4,3	4,0
total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

SOURCE: 0ENB, 2005; MUSIL, 2005B

Spatial Patterns of Investment Relations

For the agglomeration as a whole, the political and economic transformation of Middleand Eastern European countries had a deep impact on the spatial patterns of foreign investments. In 1989, about 81 percent of investment capital was targeted at locations in Western Europe³; but by 2001 the share of these traditional regions had declined to 42.6 percent, whereas investments actually grew in absolute terms. In contrast, locations in Eastern Europe⁴ had started gaining a high share of investments made by Viennese companies; ranging from 5.7 percent in 1989 to 40 percent in 2001. Also locations outside Europe increased in importance, from 13.3 up to 17.4 percent. The question now arises if there are any differences in the spatial patterns of investments coming from the two subregions, the core city and the suburban region. It seems quite clear that the structural distinctions would also find a spatial expression (figure 3).

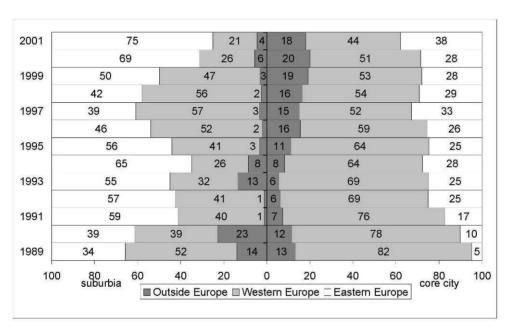


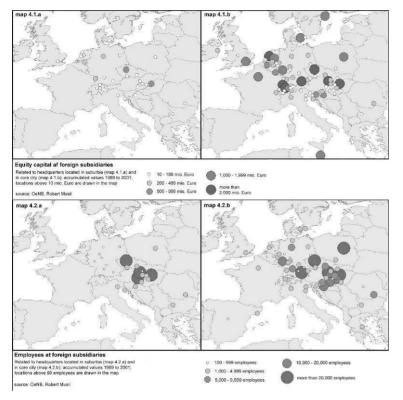
Figure 3. Spatial patterns of investments (share of total invested capital, 1989 to 2001).

SOURCE: 0ENB, 2005; MUSIL, 2005B)

- For headquarters located in the core city, subsidiaries in Eastern Europe just played a marginal role (5 percent of investment capital) while target regions in Western Europe dominated quite clearly (about 82 percent). In contrast, "suburban" headquarters show a much stronger focus on target regions in Eastern Europe. Already in 1989, the year of the fall of the Iron Curtain, one third of all investments were located in Eastern Europe. These facts highlight a distinctive Eurocentric orientation, and a weak worldwide range and global integration of those headquarters located in Vienna's suburbia. Further, the spatial "reorientation" of Viennese MNEs took to a larger extent place within the suburban region.
- The level of target locations show more differentiated spatial patterns; the core city is characterised by a broader economic *sphere of activity* in absolute terms: headquarters from the core city hold subsidiaries on 120 foreign locations, whereas companies from the suburban region show investment relations to just 70 locations of them. Furthermore,

spatial patterns show a strong Euro-centrism: only ten percent of all investment targets are not located in Europe; and even in Europe we can find a strong concentration on those countries that share a border with Austria (figure 4).

Figure 4. Spatial patterns of target locations in Europe (equity capital map 4.1.a suburbia, 4.1.b core city; employees map 4.2.a suburbia, 4.2.b core city).



SOURCE: 0ENB, 2005; MUSIL, 2005B

In order to assess the degree of integration of the Viennese agglomeration into the global economy, it makes sense to refer to a classification of global city-status (Taylor, 2004), defined by GaWC-study group⁵, and to analyse Viennese investment locations according to this. Three locations, which all have been identified as off-shore, were removed to avoid distortion (Channel Isles, Cyprus and Malta). The target locations were then divided into three groups, based on their "connectivity" to the global city network; half of all investment locations have been identified as "without global city-status" (61 locations or 52.1 percent), about a quarter with "high global city-status" (29 locations or 24.8 percent) and another with "low global city-status" (27 locations or 23.1 percent). The distribution of equity capital clearly shows that Euro-centrism cannot be equated with a weak integration in global markets: the largest share of investment capital from core city headquarters is related to locations with high global city status (54.6 percent), an additional 39.1 percent towards locations with low global city status; locations without global city status play a minor role (6.2 percent). Investment patterns from suburban headquarters show different patterns: while locations with low global city status dominate (56.7 percent), high ranked global cities hold just 32.8 percent; similar to the core, locations without global city status play only a marginal role (10.5 percent). For those investments made by headquarters from the core city a significant dependence between the amount of equity capital and global city status (with a positive tendency) could be confirmed by test statistics⁶.

What role does spatial distance play for the investment activities of Viennese company headquarters? Do we have to follow the "end of geography"-idea (O'Brien, 1992), which stresses the declining relevance of spatial distances? The amount of equity capital as well as the number of subsidiaries show a weak, but significant negative correlation for suburbia; so, with increasing spatial distance, there is a tendency for declining investment activities. In case of headquarters located in the core city, there are no significant values; this leads to the assumption that for these firms spatial distance does not restrict investments. The employment at the foreign investment targets shows a significant negative correlation, even for both sub-regions of the agglomeration: the number of jobs at the subsidiaries seems to decline with increasing distance, whereby the negative correlation for the suburbia is more pronounced compared to that of the central city. In spite of weak correlation indices it makes sense just to speak of tendencies; the spatial behaviour of firms is too complex as to be explained by a few variables.

The spatial distribution of equity capital, and even more of jobs, emphasizes the limited economic *spheres of activity* of firms located in Vienna's suburbia; furthermore, the maps stress the considerable concentration on a small number of target locations: just five cities (Budapest, Prague, Hannover, Strasbourg and Eindhoven) hold the largest share of total equity capital (54.2 percent) invested in European investment locations. The core city has more diverged spatial patterns, but also here the distribution of equity capital is concentrated in a small numbers of cities: Munich, Budapest, Amsterdam-Randstad, Prague and Basel receive 48.0 percent of equity capital. The distribution of employees at the foreign subsidiaries shows quite similar patterns, whereby locations in Eastern Europe dominate clearly in case of headquarters located in suburbia. In spite of low capital intensity and a dominance in industry and low value service sectors (see table 2), the assumption that suburban firms use Eastern Europe as an "extended workbench" seems to be confirmed; compared to firms of the core city, which do this to a much higher degree.

Conclusion: a Globalised Postsuburbia?

What role does the suburbia play in the global integration of the agglomeration of Vienna? The analysis shows quite clearly that – compared to recent demographic development – the economic suburbanization is at a below level average: about one quarter of the agglomeration's population live in suburbia, but just one fifth of jobs can be found there; in addition, the suburban region holds just a tenth of jobs in the high value service sector, which is a relevant indicator for a region's global connectivity. Although some branches of the producer service sector show spectacular growth rates, most newly created jobs in suburbia belong to low value services (especially trade).

The actual contribution of suburbia to the global connectivity is strongly underrepresented: in 2001, 15 percent of headquarters in the Viennese agglomeration were located in suburbia, but their share of total investments was only about 6 percent. Furthermore, investment relations of suburban firms show significant differences in capital intensity and branch structure, which could be interpreted as a different strategy for internationalisation: investments related to the suburban region are smaller in size

and capital intensity, and concentrate on industry and on the low value service sector (trade). However, company headquarters in Vienna's suburbia show a high growth rate and seem to have a better business performance.

The spatial distribution of subsidiaries is characterised by a strong concentration on Eastern European locations. This is especially true for subsidiaries of companies with suburban headquarters. The narrow focus on the (internationally-speaking) immediate vicinity should not, however, be seen as being the expression of poor global integration. In the case of the core city headquarters, investment targets show a high global city-status; but even suburban headquarters show similar investment relations, even if to a smaller extent.

On the whole, the idea of emancipation and integration of post-suburbia from the perspective of global centrality has, at least for the case study of Vienna, to be called into question. Although suburbia holds an increasing share of the agglomeration's global integration, structural differences seem to allow for the conclusion that Vienna's suburbia has a stronger concentration as a hub towards the "extended workbench" of Eastern Europe than the core city. The development of the suburban region cannot be seen as independent from that of the core city. In this light, the global centrality of Vienna seems to follow the central-peripheral gradient having the city's CBD as its dominant core.

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NOTES

- 1. In case of Vienna, 81.5 percent of firms analysed (N = 54) relocated in the same region of the agglomeration (core city to core city or suburbia to suburbia. Their value for the whole sample (seven cities, including Vienna) is 73.1 percent (N = 335).
- 2. "Large enterprises" (Großunternehmen) are companies that are subject to corporate income
- 3. Western Europe: EFTA and EU-15.
- **4.** Eastern Europe (CEEC-19): Albania, Bosnia and Herzegovina, Bulgaria, Serbia and Montenegro, Estonia, Croatia, Latvia, Lithuania, Moldova, Macedonia, Poland, Romania, Russia, Slovakia, Slovenia, Czech Republic, Ukraine, Hungary, Belarus.
- **5.** GawC= globalization and world city study group (www.lboro.ac.uk/gawc/).
- 6. Pearson CHI²-Test: test-value 17.579, df4, significance 0.001.
- 7. Correlation Kendall-Tau-b (Variable air-distance): equity capital/suburbia: -0.201*; subsidiary/suburbia:
- -0.257**; employee/core city:-0.201*; employee/suburbia:-0.323**;

Correlation Spearman-Rho (Variable air-distance): equity capital/suburbia: -0.278*; subsidiary/

-0.359**; employee/core city: -0.292*; employee/suburbia: -0.464**.

ABSTRACTS

The main research question of this study aims to clarify, if it is possible to speak of an emancipation of suburbia; a postsuburbia. Two indicators shall help to show the role that the suburbia of Vienna plays with regard to the global integration of the whole agglomeration: producer service firms and the investment patterns of company headquarters located in suburbia.

Data show that the suburbanization of high value service firms is far below average; most newly created jobs in suburbia belong to low value services (trade). The investment activities of suburban headquarters confirm their integration into the global city-network; but differences in structure and spatial patterns allow for the conclusion that Vienna's suburbia has – in this context – merely a complementary function to the core city.

Dieser Beitrag möchte der Frage nachgehen, ob im Sinne posturbaner Entwicklungsprozesse eine Emanzipation des Umlandes von der Kernstadt stattgefunden hat. Konkret sollen dazu Umfang und Form der Einbindung der Suburbia Wiens in das Global City-Netzwerk untersucht werden, wobei zwei Indikatoren die Bewertungsgrundlage bilden: unternehmensorientierte Dienstleister sowie internationale Beteilungen von Unternehmenszentralen, die im Wiener Umland niedergelassen sind.

Es zeigt sich, dass von der Tertiärisierung des Umlandes hochwertige Dienstleistungs unternehmen nur in sehr geringem Ausmaß betroffen sind: es ist vor allem der Handel, der der Suburbia neue Arbeitsplätze bringt; die Beteiligungsstruktur der Unternehmen macht deutlich, dass es wohl eine Einbindung der Suburbia in das Global City-Netzwerk gibt, räumliche und strukturelle Muster lassen jedoch darauf schließen, dass diese eher komplementär zur Vernetzung der Hauptstadt zu sehen sind.

INDEX

Keywords: post suburbia, tertiarization, headquarters, global city, Vienna **Schlüsselwörter.** Post-Suburbia, Tertiärisierung, Unternehmenszentralen, Wien

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