Germany’s big cities are gaining in attractiveness both as a place for living and as a location for companies. Even as Germany’s total population is declining, the population of cities increased by nearly 3 percent between 1999 and 2008. The same is true for spatial shifts in the economy: During the past 10 years employment in big cities increased by nearly 4 percent while stagnating in Germany as a whole. Demographic and economic trends towards cities influence each other. On the one hand young skilled people are accepting job offers in the cities. On the other hand companies are now taking the preferences of highly skilled employees into account when choosing a location because know-how is scarce.

The big cities’ new attractiveness is especially appealing to young people with an above-average income. Their main problem is to reconcile their career desires with their wish for a family. Cities are more able to profit from the new trend in people’s choice of residence if they create better conditions for children. At the same time, good urban planning can help mitigate the social conflicts and expulsion effects that result from gentrification in the city centers.

“Better City, Better Life” is the motto of the World Expo 2010 in Shanghai. A major reason for this choice might have been urgent social, ecological, and infrastructural problems in the fast growing mega-cities in developing and emerging countries.

At the same time, in industrialized countries, urban planning is faced with considerable challenges. But here cities usually face differing challenges with respect to spatial development than cities in poorer countries. A combination of modern, area-wide transport and communication networks with high incomes enable spatial decentralization—for private households that prefer less densely populated regions as well as for companies unwilling to pay for an urban location. For many of these cities the problem is shrinkage, not growth.1

However, there are more and more signs indicating a renaissance of big cities.2 This development is analyzed for the case of Germany in this paper. The data used

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Kurt Geppert, Martin Gornig

includes the year 2009 thus including effects of the recent financial and economic crisis.

**Population of big cities growing against the trend**

Since 2003, Germany’s population has been constantly declining. This is due to the low birth rate of 1.4 per woman, which makes each new generation smaller than the preceding one. Despite higher life expectancy, more people die in Germany than born. For many years this development was balanced by immigration. But with stricter regulations in the asylum law and fewer repatriations of German origin, immigrants are fewer and fewer in number.

Another factor are the high regional disparities in the demographic development. This is due to migration patterns within Germany. For a long time, only migration from Eastern to Western federal states received public attention; however, now changes in migration patterns between densely populated regions and rural areas can also be observed.

These changes in regional development patterns become especially clear when looking at cities with a population of at least 500,000 (Figure 1). Since the end of the 1990s these big cities are developing better than the national average. They were not affected by the shrinking process that started in 2003; instead increasing their growth dynamic.

Another difference to earlier times is that big cities are now able to leave their surrounding suburbs behind. Since 2004, suburban population has been declining. Thus the long-term trend towards suburbanization seems to have ground to a halt, at least for the big cities. The reasons for this development are not quite clear. The same goes for the question whether this trend is only a short intermezzo or if it is the beginning of a permanent re-urbanization in Germany.


1 Independent cities with over half a million inhabitants.
2 Surroundings of a city are administrative districts within the city’s catchment area (suburbs and close-by smaller cities).
Sources: Federal and State Statistical Offices.

While the cities’ surroundings used to have the highest population increase until 2004, since 2005 it is the cities themselves.

City population getting relatively younger

In order to find new evidence on the reasons behind the cities’ new attractiveness as a place for living, we analyzed which population groups live in cities. An evaluation of the population development by age group shows that big cities are getting younger and younger when compared to the national average (Figure 2). The number of people under the age of 18, for example, is decreasing only half as much in cities as in Germany as a whole. At the same time, the number of people aged 18-25 is growing nearly twice as fast in big cities as on average. The differences are even greater for the age group of 25-30 years: This age group is increasing in big cities by 12 percent. In Germany, as a whole, the population of this age group is decreasing by nearly 5 percent.

For the older age groups, the picture is inverted: Cities are losing people who are approaching retirement and show only a slight increase in the number of senior citizens. This means that cities were not only able to attract people in an age range relevant...
for professional training, but have also made their working potential younger.

**Munich, Dresden and Leipzig show strongest growth rate**

Still, these trends do not apply equally to all cities (Table 1). Between 1999 and 2008, Munich showed the highest dynamic with population growth over 11 percent. In second and third place are the East German cities of Dresden with 7 percent and Leipzig with 5 percent. Most other cities show growth rates of 3-4 percent. Berlin and Bremen have grown by 1.5 percent, while Ruhr cities like Dortmund, Essen and Duisburg faced population losses.

The differences in population growth between cities are in part the result of growth differentials in specific age groups. For example, the age group of 25-30 grew strongly in Dresden, Leipzig and Munich: the number of women increased there by 40 percent. Other cities with a very high increase of women in this age group (over 15 percent) are Frankfurt, Berlin, Cologne and Hamburg. Meanwhile the number of female inhabitants of big cities aged from 25 to 30 years exceeds that of men by 4.8 percent. In Germany as a whole, this relation is the other way round (2.5 percent more men than women).

Changes in the population of cities are the result of shifts in the age structure and regional migration processes. Current migration statistics show a migration balance in favor of the big cities. The largest net immigration between 1999 and 2008 was observed in Munich and Hamburg, followed by Berlin, which since 2005 has an even more dynamic demographic development. But all other German cities had a positive migration balance, with the exception of Duisburg.

The biggest part of this migration is caused by the age group of 18-25. All big cities show positive net migration in the age group of 25-30 as well. Berlin is doing better in this group, while Leipzig and Dresden are lagging slightly behind. This applies equally to women and men.

**What makes big cities attractive again?**

In the USA, where first re-urbanization trends were observed in the 1990s, immigrants’ choice of residence was given as most important influence on this development. It was them who dominated regional migration patterns and showed a strong preference for specific cities with respective cultural characteristics. In Germany, some immigrant groups con-
The cities’ newly regained attractiveness may also be the result of women entering the workforce. It is not only young men who come to the cities for higher education, but also women are increasingly choosing cities for university training. Fewer are becoming housewives in single-family houses. Women now increasingly seek to combine their professional and private interests in densely populated city centers.

A decisive factor in favor of cities for both men and women is a job offer after completing their education. Without looking at the economic attractiveness of cities, all re-urbanization theories will remain incomplete. This makes the economic development of big cities a main focus.

### Table 1

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<th>Population Development and Migration in Cities in 2008</th>
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<td>Duisburg</td>
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For information only: Germany 82,002 99.8 100.2 99.4 – – –

Sources: Federal and State Statistical Offices, calculations by DIW Berlin.

**DIW Berlin 2010**

Also after completion of their training young people more and more often choose life in a big city. Among the group of 25-30 year olds living in cities, the share of women has increased significantly.

centrated spatially in big cities. However, unlike the United States, foreign immigrants do not determine the migrant patterns.

Another traditionally important reason for moving to a city is higher education, especially at universities. Normally big cities have important universities and offer infrastructure attractive to young people. At the same time the number of people seeking higher education is increasing. The education factor is assumed to be the most important reason for the strong increase in 18-25 year olds in the cities.

But the big cities also benefit from this age group after completion of higher education. A reason for members of this age group to stay in a big city could be a change of lifestyle. The diverse cultural opportunities afforded by living in big cities makes people want to stay in or move to city center neighborhoods after they have completed their education. At the same time new housing is being developed in the city centers, including developments that appeal to households with high incomes. Examples include prestigious projects like Hamburg’s Hafencity, but also the development of quarters for single-family dwellings in the vast area of Berlin’s old central cattleyards.

The cities’ newly regained attractiveness may also be the result of women entering the workforce. It is not only young men who come to the cities for higher education, but also women are increasingly choosing cities for university training. Fewer are becoming housewives in single-family houses. Women now increasingly seek to combine their professional and private interests in densely populated city centers.

A decisive factor in favor of cities for both men and women is a job offer after completing their education. Without looking at the economic attractiveness of cities, all re-urbanization theories will remain incomplete. This makes the economic development of big cities a main focus.

**Employment rates in big cities significantly increasing**

Economic structural change in big cities was characterized by two contrasting trends in the past decades—the reduction of jobs in the industrial sector...
on the one hand, and the expansion of the service sector on the other hand. In total, employment in the cities has increased, but the speed of growth was considerably lower than in the surrounding areas and other less densely populated regions in Germany. This process of spatial decentralization of jobs and income could be observed until the second half of the 1990s.\textsuperscript{12} From then on a different trend materialized: employment in big cities increased more than national average, a trend continuing to this day.

Between 1999 and 2009, the number of jobs subject to social insurance contributions in cities with populations of at least 500,000 increased by nearly 4 percent, even as it stagnated in Germany on the whole (Figure 3). Over time, cities profited massively from the internet-driven boom at the end of the 90s. During the recession that followed, cities suffered similarly to the rest of Germany. After the recession, economic development in cities turned relatively positive again. The difference to the rest of the country was most pronounced in 2009. Currently, big cities are suffering less from the economic crisis than the German average.

One can also observe significant change in the surroundings of big cities compared to earlier decades in employment development. These areas expanded strongly for quite a while because, in part, many companies relocated production sites away from dense and expensive core cities. But between 1999 and 2005, employment in the areas surrounding big cities developed only to the German average; and since 2006, the development has been less than average. This shows us that cities have not only improved their position in spatial division of labor against less densely populated and rural areas, but also against their immediate surroundings.

When looking at reasons for the relatively positive economic development of the cities, it helps to differentiate between sectors that mainly distribute their products locally and those that are active beyond the local region. Locally oriented activities like retail, public transport, manual services, personal or municipal services account for most jobs. In this field, there are no major differences between regions.\textsuperscript{13}

The situation is different for activities with a supra-regional focus like industrial production or knowledge-intensive services. The national or international market shares in these industries depends on the location quality. Income from supra-regional activities provides, in turn, stimulus for a region’s internal economy.

**Supra-regional services strongly expanding**

Against the background of only 30-40 percent of a city’s (or any region’s) economic activities aimed at non-local markets\textsuperscript{14}, the industrial sector with 13 percent of total jobs is still an important pillar of urban exports (Table 2). However, its significance is declining. As the industrial sector has shrunk over the last 10 years, German cities have lost disproportionately more industrial jobs, 15 percent, than the national average of 8.5 percent.

The increase of total employment in big cities over the past decade is mainly due to the excellent position of cities in supra-regional services. Knowledge-intensive services like financing, insurance, and counseling are, in most cases, intermediate services used by firms, which are the most important

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services in our analysis. Big cities with multiple contact and exchange opportunities, a large supply of skilled workers, and their supra-regional traffic infrastructure obviously offer good conditions for the providers of such services. The percentage of jobs that such services provide was 19 percent in 2009, while only 11% in all of Germany. This specific structural pattern is so important for the cities because most subsectors of knowledge-intensive, business-oriented services generally develop dynamically. As a hub for these services, cities profit most from this trend.

Beyond this structural effect, cities have witnessed better economic development than other regions. In part this is because these vitally important knowledge-intensive, business-oriented service sectors have grown significantly more in cities than elsewhere. In this sector the number of jobs subject to social insurance contributions increased by 23 percent between 1999 and 2009 in cities while the national average was only about 15 percent. The biggest growth difference between cities and the rest of the country—20 percent—could be observed in legal and economic counseling as well as in advertising. The only sectors with significantly higher growth in other regions than in cities were both R&D services as well as physical and chemical laboratories.¹⁵

Knowledge-intensive services for companies play a special role in cities. They have a high percentage and grow faster than on national average—though not in all subsectors.

### Employment growth: Hamburg, Munich and Frankfurt take the lead

When comparing German cities, there are considerable differences in employment development. Between 1999 and 2009 these figures ranged from -1.6 percent in Berlin and Essen to +9.6 percent in Hamburg (Figure 4). However, the average development of the cities is not distorted by extreme cases but represents an overall trend: Out of 14 cities, only 3 had employment growth below the national average, and the differences were slight. In contrast, the growth of 7 cities was significantly stronger than in the rest of Germany. The top group consists of Hamburg, Munich, and Frankfurt/Main.

When analyzing a full decade, changes in development trends might remain hidden. This is why we also analyzed two separate time spans: 1999-2005 and 2005-2009. 2005 as a dividing line is ideal because Germany’s employment development was at a low that year and the following economic upturn showed clear spatial differences.

Berlin has the biggest change in the analyzed time span. Using the full decade’s data, Berlin lost one in ten of its jobs that are subject to social insurance contributions: the worst performing city in Germany. However, when the decade is divided, Berlin shows remarkable growth in the second half (like political parties and associations). A comprehensive diachronic analysis is complicated by changes in the official sector classification in 2008.

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¹⁵ In this paper, sectoral-specific analysis of employment development is limited to knowledge-intensive services for companies. However, supra-regional and knowledge-intensive activities also play a role in other service fields like wholesale, transport, information and communication, tourism services, health and education or non-commercial organizations. The distinction becomes more problematic for services in public administration (like political parties and associations). A comprehensive diachronic analysis is complicated by changes in the official sector classification in 2008.
of the decade: about 9 percent growth. Suddenly Berlin, together with Hamburg, ranks at the top on the employment growth list.\textsuperscript{16} The other two big East German cities, Leipzig and Dresden, also improved in the latter half of the decade.

In contrast, some cities that grew significantly during the first half of the decade are now below average: this is the case for Munich and Stuttgart. During the 2005-2008 upturn, employment increased comparatively modestly in these cities, and during the current crisis, these two are suffering more from the crisis than others. These short-term developments are not, however, indicators that Munich and Stuttgart will be permanently relegated to having poor economic development.

The cities analyzed in this paper are more or less specialized with respect to supra-regional economic activities. The share of manufacturing in total jobs in 2009 is, for example, 7 percent in Frankfurt/Main, but 24 percent in Duisburg. The same goes for knowledge-intensive, business-oriented services. There is a clear correlation between the specific specialization of a city and its economic development. Cities strong in knowledge-intensive, business-oriented services at the beginning of the evaluation period usually also had strong employment growth.

In contrast, industry-oriented cities tend to be less dynamic. However, the case of Munich shows that an above-average focus on the industrial sector does not automatically lead to a weak employment development.

Population and economic growth mutually dependent

Initially, we analyzed population and economic developments separately. But there are a number of aspects indicating that the re-urbanization trends we found in both areas are in fact mutually dependent. One argument supporting this assumption is temporal parallelism. Since 2005, cities have experienced considerably stronger population and employment growth than elsewhere in Germany. Even when looking at spatial differences, certain parallels stick out. Economically dynamic cities like Munich, Hamburg, and Frankfurt also have extremely high population growth rates, especially of young employed persons. Vice-versa the population development tends to be relatively low in cities with lower employment growth rates like in the Ruhr region. In East German cities like Dresden and Leipzig, a rising dynamic in employment development follows immigration; a trend also found in Berlin.

But what forces are driving spatial concentration processes? Are the forces coming from population development or from economic development? Do people move to the city because of good economic prospects and the hope for a good job, or do companies choose cities because that is where skilled employees are found? There are strong arguments for both explanations.

Economic structural change in developed economies is without doubt characterized by growing importance of knowledge as a production factor. Spatial clustering and localized knowledge spill-overs play an important role for firm productivity and allow companies to make use of the advantages of big

city agglomerations. These locations attract highly skilled people who are, in general, more mobile than less qualified workers.

The scarcer well-educated people are in a knowledge society, the more they can ignore the labor market situation of specific locations. There is evidence for semi-autonomous behavior of highly skilled workforce regarding their choice of residence. Qualified people—often called the creative class—seek a lifestyle with an interesting art scene and ethnic variety, something mainly found in big cities. Since the creative class wants to live in cities and the knowledge economy needs their know-how, companies follow the employee’s choice.

For the time being, the only safe assumption we can make is that both trends favor big cities. Which aspect outweighs the other is hard to say. It probably cannot be assessed in general. Munich’s dynamic population and employment development seems to be driven by the economic side: Big, established companies offer well-paid jobs and good career prospects. For Berlin, the situation is different. Here the knowledge economy is rather fragmented. Berlin’s strong media, arts, and culture scene often offers only temporary contracts and fluctuating income. Employers do not have the power to bind their human capital for longer periods. This means they must go and grow where the creative class is. In turn, members of the creative class can only live with this fragmentation if—like in the case of Berlin—there is a big enough labor market.

Conclusion

Germany’s big cities have become more attractive both as a place for living and as a business location. The population of the analyzed cities grew by nearly three percent between 1999 and 2008 while Germany’s total population decreased slightly. The strong population increase in the cities was driven by young people moving to the city. But also the group of 30-50 years showed a more positive development than in the other regions of the country. A similar shift in spatial structure can be observed in economic terms. Over the last decade jobs subject to social insurance contributions rose by nearly 4 percent in the big cities, even as these jobs stagnated in Germany as a whole. Although cities lost manufacturing jobs, it was more than balanced by the strong expansion of knowledge-intensive services.

There is no doubt that both trends in Germany’s spatial development are mutually dependent, but it is not easy to identify cause and effect. On the one hand, highly skilled people are attracted by the job offers in successful cities, thus following the companies. On the other hand, there is empirical proof that well-trained professionals choose their place of residence primarily according to their desired life quality and less according to available jobs. Since know-how is a scarce good in a knowledge society, companies follow the residence of the people they wish to employ.

The fact that young people choose more often to live in a big city and have a family has many implications for policy: urban planning, education, and other infrastructure. Cities can profit from this trend if they create the necessary urban and institutional conditions to make raising children easier. All of Germany can profit economically if residence choice and the desire to have a child were easier to reconcile.

The cities’ new attractiveness is especially appealing to people with a higher income, as well as young graduates who stay in the city center after completion of their studies. On the one hand, this is a chance for a better social mix in the cities. On the other hand, the risk of expulsion effects through gentrification is also on the increase. The influx to the city centers is often focused on specific period building quarters. Commercial use and the demand of high-income households make rents go up, thus expelling socially disadvantaged groups from their traditional neighborhood. Urban development strategies need to tackle this problem through adequate planning and action in order to satisfy the demands of all groups with the least possible friction. In this context the return of commercial and logistic fallow land could be just as important as instruments for the promotion of urban construction. Non-construction measures like neighborhood management are equally important.

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