

Inspire policy making by territorial evidence



Second Tier Cities Matter

More than ever, cities today need to reinforce smart, sustainable and inclusive growth, while managing e.g. demographic change, housing, urban mobility, energy transition, all in a context of scarce public but also private resources. They function as nodes of development and contribute decisively to local, regional, national and European economic growth.

Evidence has shown that a greater distribution of investments within countries is associated with stronger economic performance of their second tier cities. Consequently, a more resilient and polycentric development of the European urban fabric can be achieved by strengthening second tier cities, and by promoting a more networked development of the system of European cities at regional, national and European level. It is therefore important for policy makers to keep in mind the significance of strong second tier cities for economic growth and jobs as well as for polycentric and cohesive territorial development.

Key messages for policy consideration

- Several European second tier cities fared better than their capitals throughout the economic crisis. Their economies grew quicker, their population is often growing and highly educated, and they improved their accessibility.
- Second tier cities differ and therefore require tailor-made, place-based policy development, taking into account their national and regional context, their location in the European territory, accessibility, availability of well-educated human capital and governance structure.
- Policies and investments should promote development in Europe's second tier cities to support
 a balanced polycentric urban system and territorial cohesion in Europe. This is particularly
 important in countries where capital cities still strongly dominate the national economy.
- The smaller the socio-economic difference between second tier cities and the capital, the more successful national economies will be and the better second tier cities will perform.
- Accessibility improvements for second tier cities often imply investments in secondary transport networks. However, an improved accessibility potential is no guarantee for positive economic and demographic development. It needs to be accompanied by other development measures.
- Regional airports can in certain circumstances improve the development potential of second tier cities with low accessibility by air. However, air connections are more vulnerable since private flight operators change destinations more rapidly than operators using rail or road.

- Since a growing number of jobs will require tertiary level education, access to higher education, eventually with a focus on the locally prevailing economic structure, should be further improved for second tier cities so that they can continue attracting young people.
- Governance, institutional capacity and cooperation of stakeholders across all levels of governance play an important role for second tier cities to further thrive.

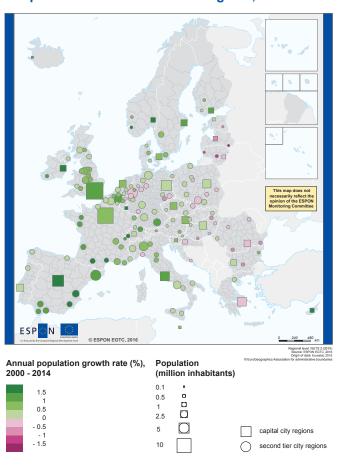
Second tier cities encompass the group of largest cities in a country excluding the capital. Their economic and social performance is sufficiently important to affect the performance of the national economy. The 127 second tier cities in Europe vary considerably in size, accessibility and economic performance. No second tier cities are defined for Iceland, Cyprus, Luxembourg, Malta and Liechtenstein due to the small size of the countries and consequently the absence of other larger cities apart from the capital.

Second tier cities growing in population

Normally, population growth in capitals is higher than the one in second tier cities (see Map 1). On average, the latter grew by 0.35% per year in 2000 - 2014, i.e. by 600 000 people per year. Some countries though saw population growth in their second tier cities that goes beyond the European average. Norway is leading in this respect with an annual average population growth rate four times that of the European average in its second tier cities. Population growth was also comparatively high in Swedish and Swiss second tier cities, followed by the ones in Austria, Finland, France and Spain.

Altogether, 29% of the European population lived in second tier cities in 2014. The demographic development of these cities is a reflection of the broader European picture where regions in the north, centre and south of Europe tend to be more dynamic and attract more people than regions in the east and in the Baltic countries. Some of the latter experienced a negative migratory balance in the period 2000 - 2014, with many people moving to other parts of Europe that were more resilient to the crisis and could still offer job opportunities and higher standards of living. Particularly young people with higher education degrees moved from eastern, partially also southern parts of the continent further west and north looking for better job and life prospects altogether. In some cases, three times as many people left the country than people entering it. Romania, for instance, experienced a considerable downturn in terms of population development. Virtually all city regions lost population during 2000 - 2014. While the loss in Bucharest was modest with an annual rate of -0.01%, most second tier metro regions had to cope with an annual population loss of -0.25% to -0.9%. The metro region of Craiova, for

Map 1. Annual population growth in European capital and second tier metro regions, 2000-2014



instance, lost close to 95 000 inhabitants between 2000 and 2014. A similar situation can be seen in Hungary, where the majority of second tier metro regions experienced an annual loss of population. The annual growth rate of Budapest, though, was with 0.4% still lower than the average annual growth rate of 0.6% of Eastern European capitals.

While the described trends in European population development had unfavourable effects on some Eastern and Southern second tier cities, they contributed to the overall positive development trajectory of second tier cities in the west and north of Europe after the crisis. The migration of well-educated and qualified young people also helped the recovery of the economies of the recipient regions. Apart from the fact that the latter could still offer employment, they also managed to maintain a good level of service provision, attractive living conditions as well as good accessibility.

European second tier cities are experiencing faster economic recovery than capitals

Economic activities concentrate in larger cities where they benefit from good accessibility, availability of well-educated human capital and various services and amenities that make those cities also attractive places to live in. Second tier cities can achieve many of the agglomeration effects of capital cities, if they have the right infrastructure, facilities, capacity and powers. In the EU28 second tier cities accounted for 30% of the GDP in PPS in 2013.

In more polycentric countries with a relatively balanced urban system (e.g. Germany, Italy) second tier cities contribute not only very strongly to the national economic performance, they even do so to a larger degree than the capitals.

Before the onset of the economic crisis in 2008, second tier cities in many countries outperformed their capital cities in terms of economic growth. However, this improved economic performance was, among others, due to substantial investment of public resources in many countries. The economic and fiscal crisis had various impacts on second tier cities and threatened to undermine their earlier achievements. The majority of second tier cities experienced a drop in their GDP during 2007-2009. A few have not recovered since.

While second tier cities contributed stongly to their national economic performance already before the onset of crisis, they still do so today. However, the difference to the pre-crisis period lies in the fact that from the peak of the crisis to 2013 also several Eastern European second tier cities fared better than their capitals (Czech Republic, Bulgaria, Hungary), which often dominate the national economy to a large degree. In fact, in 15 out of 24 European countries the leading second tier cities had higher annual GDP growth rates in this period than their respective capital city (see Figure 1). Compared to the pre-crisis period, this is an impressive development of Europe's second tier cities, which seemed to be more resilient to the economic turmoil than the capitals. On the contrary, in some countries, the leading second tier cities that showed faster growth rates during the boom, are showing slower recovery rates than capitals (Sweden, Denmark, Ireland, Croatia).

In Austria, Bulgaria and Slovakia all second tier cities grew faster in economic terms than the capital city; in Germany six second tier cities grew faster than Berlin, which has been historically constrained. This trend was also observed in the boom years and continued irrelevant of the crisis.

In France, the economic growth of some second tier cities (i.e. Nantes, Marseille) was approximately on a par with the capital city after the crisis. Before the onset of recession, some French second tier cities experienced growth rates that were 1.5 times higher than that of Paris. In the period between the peak of the crisis up to 2013, Toulouse and Lyon showed even higher annual growth rates than Paris, just like in terms of population growth. In Poland, the majority of second tier cities were not at

Recovery rate in leading second tier metro region over 1.5 times capital 16 12 8 RO Recovery rate in leading second tier metro region 1 to 1.5 times capital 16 12 8 Helsinki Graz Linz UK ВЕ Capital city recovery rate higher than all second tier cities 16 12 8 SE LV EE SI IR CR DK Crisis had little effect on GDP growth in some regions Some (or all) metropolitan regions show no signs of recovery 16 12 8 0

Figure 1. Annual GDP growth rate in second tier cities, 2009 - 2013

Origin of data: Eurostat (2016)

Annual growth rate of GDP during the boom in metro regions, %

Annual growth rate of GDP during the boom, national average, %

Annual growth rate of GDP since the peak of crisis in second tier metro regions, %

Annual growth rate of GDP since the crisis in capital metro regions, %

Annual growth rate of GDP since the crisis, national average, %

all affected by the crisis and those that were recovered very quickly.

The crisis is still deepening in all of the cities in Greece, in the majority of the Spanish second tier cities and in some cities in Italy (Naples, Palermo, and Genoa) and Hungary (Pecs). Also the recovery of Madrid and Rome took longer than that of other European capitals.

When looking at absolute GDP values and their development over the years 2009 – 2013, Eastern European second tier cities tend to show significantly lower GDP values than their capitals. Romania and Hungary both reveal rather big disparities between the capital city and their second tier cities in terms of economic development. For instance, Bucharest already strongly dominated the national economy in the period before the economic crisis and this hasn't changed in the years up to 2013. In 2013, the GDP in PPS in Bucharest was six times that of Cluj-Napoca and close to six times that of Timisoara.

Stuttgart's fast recovery: the link between short-term and mid-term policy strategies was key

The second tier city of Stuttgart, state capital of Baden-Wurttemberg, was particularly negatively affected by the crisis because of the dominance of export oriented automotive and machinery industry. GDP declined by 8.7% in 2009, while the average decline in Germany amounted to 5.2%. However, the economic recovery after 2009 was stronger in Stuttgart and the state of Baden-Wurttemberg altogether. While the average annual GDP growth in all 16 second tier cities in Germany and in Berlin amounted to 5.2% in the period 2009-2013, the one of Stuttgart was almost twice as high (9.4%). Although the high export intensity caused a high vulnerability of the city to the crisis, it also proved to be the key to a fast recovery. Increasing demands from China and other emerging economies led to swiftly improving GDP growth and a new peak in 2013.

Another reason for the resilience of Stuttgart is the strong innovation capabilities of the economy. In fact, companies tried to avoid reducing investment in research and development or even increased their activities to foster their innovative capabilities. Furthermore, experiences from past recessions were successfully processed, i.e. instead of making staff redundant, companies used flexible working-time arrangements and short-term work to retain their workforce. Finally, dialogue-oriented governance styles stimulated the development of pragmatic short-term solutions. After the recovery, Stuttgart is even more competitive than before the crisis.

Gdansk's resilience due to various factors

The Polish seaport city of Gdansk, like the majority of Polish cities, was not affected by the crisis. The city's resilience can be put down to a multilayered package of factors. The economy in the city and the surrounding Pomorskie region is diversified, dominated by strong small- and medium-sized enterprises and export oriented. European funds contributed to the modernization of numerous companies, which helped to increase efficiency of production while keeping labour costs low. Well-qualified human capital working in shipbuilding, electronic, IT and chemical industries contributed significantly to the high level of Gdansk's resilience. Important branches of the local economy are also health and educational services. Furthermore, Gdansk benefits of a favourable demographic structure with one of the highest annual population growth in the country (12.5% in 2013) due to both, positive natural population development and positive immigration. It also offers the highest living conditions in the country with a rich and diversified natural environment, which is important in attracting and keeping qualified human capital.

Regional authorities in Poland have only limited autonomy, but they can set up development strategies and influence regional transport infrastructure. The regional development strategies in and around Gdansk focused on improving transport accessibility. The joint management of Gdansk airport by the local and regional authorities effectively supported the functioning of the region's economy.

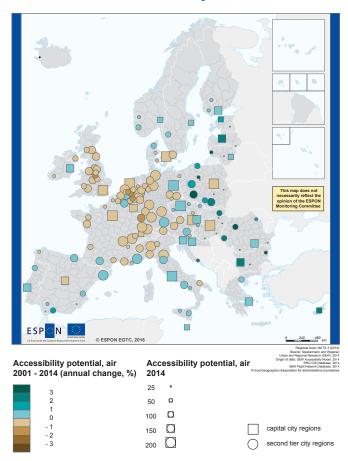
Accessibility dynamics in second tier cities

Good accessibility is generally deemed a prerequisite for economic performance and development in second tier cities as well as other cities and regions. It has a direct impact on attracting investors, increasing employment and trade, and building networks of cities. Accessibility is not only a location factor for economic activities but also provides for a good quality of life.

Transport policies that strengthen access to second tier cities can support the development towards a more cohesive and polycentric European territory. Transport infrastructure that extends secondary transport networks can have substantial impacts on the potential accessibility of individual places. Improvements in highspeed rail connections throughout Europe have particularly contributed to increasing the potential accessibility of places outside the European core, including second tier cities. Nevertheless, the scope to which improved accessibility can lead to better economic performance depends on the competitiveness of the second tier city in question.

Second tier cities in Western Europe are normally well connected by road and rail and benefit of positive population development;

Map 2. Potential accessibility of European capitals and second tier cities by air, 2001-2014



second tier cities in the east of Europe are well connected by road and partially by rail but challenged with demographic loss. However, improvements in accessibility are no guarantee for an increase in local and regional population numbers, nor an enhanced economic performance. While the second tier city of Debrecen in Hungary invested in the further development of their airport and several new flights started to depart from there, the city still had to cope with annual population losses during the last years.

The highest relative changes of multimodal accessibility during 2001 – 2014 occurred in Eastern and South-Eastern Europe. This is partly the result of a strong focus of Eastern member states on prioritizing road infrastructure development. These growths, however, are not only based on relative improvements in road transport but also air transport.

Second tier cities particularly in Eastern Europe saw major improvements in terms of potential accessibility by air in the period 2001 – 2014 (see Map 2 and Figure 2). Cities with below average accessibility by air in 2001 experienced a growth of up to or sometimes even more than 30%. This is a positive development in terms of integration of these cities in the European urban system. Furthermore, such improvements also contribute to an enhanced attractiveness and competitiveness of the surrounding regions. Three second tier cities in Poland, Bydgoszcz, Wrocław and Kraków registered the biggest annual gains in absolute terms for potential air accessibility for the years 2001-2014. The biggest improvements in terms of relative annual changes during 2001-2014 can be found in the second tier cities of Klaipeda in Lithuania and Bydgoszcz in Poland (see Figure 2).

Cities showing high growth rates in potential air accessibility usually benefit from new flight services to and from secondary airports. However, policy strategies based on the development of regional airports to improve accessibility might be risky. Air accessibility is more vulnerable to changing market conditions than accessibility by other modes. For example, the cancelation of flight connections as a consequence of the financial crisis underlines the risk of regional fluctuations in air accessibility.

In several Western and Central European countries, potential air accessibility comparatively deteriorated between 2001 and 2014, both in second tier as well as in capital cities. Potential accessibility by air is still on a high level in these countries, but as they already enjoyed high accessibility values in previous years, there was less scope for further improvement. Furthermore, a reduction of flight services also led to some deficits in air accessibility, for instance in France, Spain and Germany. These developments can also be seen as an effect of the competition with improved rail services in the respective countries. In some European countries, second tier cities showed even better potential air accessibility in absolute terms in 2014 than their respective capital cities, among them Milan, Frankfurt and Malmo.

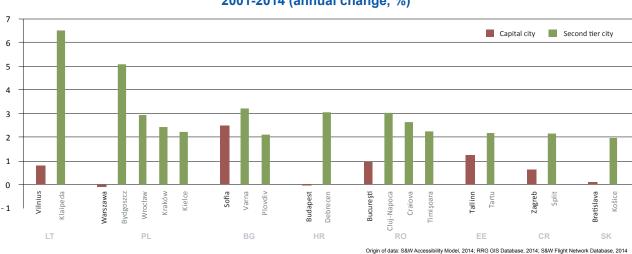


Figure 2. Accessibility potential of selected second tier cities by air, 2001-2014 (annual change, %)

People of many second tier cities are well educated

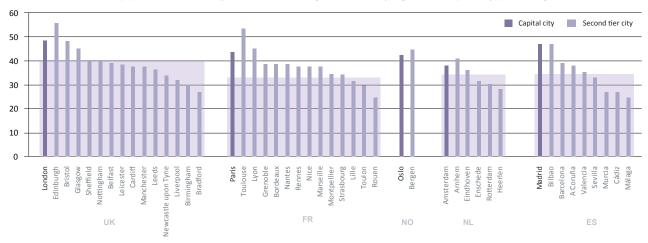
Cities and urban agglomerations normally attract people holding higher-education degrees because they offer a variety of jobs that require tertiary educational attainment as well as the quality of life that graduates are looking for. Second tier cities can stand up the competition with capital cities when it comes to attracting people with tertiary education. In fact, in 2014 there were at least six second tier cities in Europe that outperformed their national capital cities in terms of education levels of their population (see Figure 3). Bilbao, Edinburgh and Toulouse already performed better than their capitals before the onset of the crisis. However, Arnhem, Lyon and Bergen are new cases of second tier cities that do better than their capital city concerning the educational attainment of their population. Most of these cities are characterised as being research intensive and focusing on ICT. They host institutions offering higher education courses and research centres; companies from related economic activities settle there to benefit from synergies and proximity of clients and competitors alike, reinforcing specialisation and drawing highly qualified staff to the cities and surrounding regions. In Toulouse, for instance, the aerospace industry is the big pull factor that offers employment opportunities for graduates. Arnhem works together with the neighbouring municipality of Nijmegen on developing their city region into the second biggest economic area in the Netherlands after the Randstad by 2020. The city region focuses on six important clusters that should help to strengthen the economic profile. Among these clusters are healthcare and life science, energy and environmental technology, and smart and sustainable logistics. Several universities and research centres in the city region provide education and training for people who aim at working in these sectors in highly skilled jobs.

Some other second tier cities dispose of high shares of population with tertiary education although not as high as in the capital city. This goes for instance for Antwerp, Barcelona, Bristol, Cork, Eindhoven, Glasgow, Salzburg, Tampere and Thessaloniki (see Figure 3).

In some second tier cities, though, the share of population with tertiary education is below the national average. This goes for instance for Aalborg, Odense, Ostrava and Plzeň, the second tier cities in Hungary, and some second tier cities in the south of Spain and Italy. Concerning the latter, there is most probably a link between the comparatively lower economic performances of some of these second tier cities during and after the crisis with the lower share of highly educated people there. Throughout the crisis, particularly young people with higher education degrees had substantial difficulties finding or keeping their jobs in the labour markets of Southern Europe that were heavily affected by the economic downturn. Many of these people migrated to other parts of their country or abroad to try and find employment there. However, the Southern Italian second tier cities did actually show a modest population growth between 2000 and 2014 (see Map 1), albeit below the national average growth rate. In the south of Spain, second tier cities experienced even higher population growth rates during 2000 – 2014 than other cities in the country.

Figure 3. Share of population with tertiary education levels, %

Share of population with tertiary education in leading second tier city higher than capital city (persons aged 30-34)



Share of population with tertiary education in capital city higher than all second tier cities (persons aged 30-34)



Origin of data: DG Regio and Urban, EC, 2016

Tampere's transition to a node in the global knowledge economy

The Finnish second tier city of Tampere is the second major economic centre in the country after Helsinki. The local economy underwent a process of restructuring and gradually put a strong focus on the ICT sector. The two universities contributed to the creation of the regional knowledge base and thereby also to the gradual transition to a knowledge economy. Research institutes were established in the city and Nokia set up a local research unit. The knowledge economy was firmly settled in Tampere and innovation processes were ongoing when the recession in the 1990s hit the global economy.

Universities and higher education institutions form the backbone of the regional innovation system, together with large R&D oriented companies. Tampere is now the second R&D hub in the country, with a strong science and technology base, especially in the fields of ICT, health and biotechnology. There is a long tradition of cooperation between the two universities and local industry that takes various forms, e.g. students have written their master thesis in cooperation with companies, and university staff has provided training courses for companies. University initiatives such as part-time professorships for experts from industry also indicate close links between the local scientific community and industry.

The universities and other higher education institutions attract students to the city, who often stay after graduation to take up jobs in the local or regional knowledge economy. Together with the presence of research institutes, the educational institutions account for the high share of local population with tertiary level educational attainment (42% in 2014), which is above the EU average of 30%. Tampere is therefore among the top European cities with the best educated human capital. It is also among the 26 second tier cities in Europe that experienced high population growth in the period 2000 – 2014.

The city's positive development and resilience throughout the crisis was supported by the effectiveness of a specific national urban policy, the Centre of Expertise Programme that had focused on knowledge intensive sectors of the country's largest city regions since 1994.

Territorial governance matters for the performance of second tier cities

While explicit urban and/or territorial policies can address particular development opportunities and challenges of the cities concerned, it is important to keep in mind that the overall performance of second tier cities depends to a large degree on mainstream policies coming from national governments. For instance policies addressing infrastructure development, education and skills, research and ICT development all influence the ways in which second tier cities perform. The examples mentioned above all serve to illustrate this point.

Local authorities can, among others, stimulate the creation of networks between companies and educational institutions to improve the development of a particular sector; they can work on enhancing their attractiveness for residents, enterprises and visitors. Indeed, the latter aspect is considered highly relevant by stakeholders on all levels of governance, from European to local. As the ESPON workshop on "European second tier cities" on 1 June 2016 showed, policy makers and practitioners agree that development strategies fostering second tier cities should not only just focus on economic factors. Investments in the social and cultural life of cities are just as important and can play a major role in creating a specific identity that the local population is satisfied with, and that can become an asset for further development and growth.

The Latvian second tier city of Daugavpils for instance invested in the creation of the Mark Rothko Art Centre, a multifunctional contemporary art and cultural centre. This proved to be an important development for the city because it contributed to the gradual improvement of the city's image and attractiveness as well as the creation of a new identity. As a consequence, the citizen of Daugavpils also felt better about their home town that used to be known exclusively as an industrial city.

Possible policy measures that might be taken, for instance to further strengthen the accessibility of second tier cities depend, among others, on the distribution of responsibilities, the institutional capacity particularly of local stakeholders, and the cooperation of relevant policy makers. In fact, cooperation among stakeholders across all levels of governance is key in the sustainable development of second tier cities. However, cooperation requires the necessary human capacity that tends to be lacking in many cities, particularly smaller ones. Capital cities can play a supportive role here and support second tier and other cities in capacity building. This is an approach that Amsterdam follows with their "Responsible Capital" policy, which is based on the appreciation of the capital that it is responsible for and feels solidarity with other cities in the country. Therefore, Amsterdam provides civil service knowledge and expertise to three shrinking municipalities that are challenged with restructuring tasks. Furthermore, it helps with facilitating (private) initiatives that can support the municipalities by promoting their attractiveness, quality of life and sustainability.

All in all, the existing governance structure is relevant for the successful development of second tier cities. Likewise, the fact if the second tier city is located in a country with a more centralised or federal political system plays a crucial role. For second tier cities to further thrive, it is important to respect and apply a multilevel territorial governance approach that:

- Coordinates actions of actors and institutions (as in the case of the joint management of Gdansk airport by local and regional authorities);
- Integrates relevant policy sectors across all levels of governance;
- Mobilises stakeholder participation (as in Tampere, where universities and local industry cooperate to their mutual benefit as well as that of the city's prosperity);
- Adapts to changing contexts (as in Stuttgart, where during the peak of the crisis flexible working-time arrangements were applied to avoid dismissing staff); and
- Realises place-based/territorial specificities and impacts, also stemming from considering a wider territorial context than hitherto.

Further information on issues addressed in this paper can mainly be found in the reports of the ESPON projects SGPTD, ECR2 and TANGO.

ESPON 2020 - More information

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