Brussels within the Belgian Economy: a geo-economic approach
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Introduction

Economic activities are not concentrated on the head of a pin, nor are they spread evenly over a featureless plane. On the contrary, they have been, still are, distributed unevenly across regions and countries as well as within cities. This has a major implication for the geographical organization of economic activities: some places do better than others. Having this in mind, our purpose is here to highlight the relationship between the urban structure of Belgium and the economic performance of its different areas, with a special emphasis on the role played by Brussels and its catchment area. This will lead to various observations that the public at large and even political circles are not always aware of. To reach our goal, we use two different but complementary disciplines, namely urban economics and economic geography. We want to stress from the outset that our analysis will necessarily be partial and, hence, incomplete. However, it is our contention that the bird-eyed overview proposed here is both relevant and meaningful.

Before tackling our subject matter, let us recall that towns and cities, especially the largest ones, have been, and remain, major players in the economic and social life (see, e.g. Bairoch, 1988; Hohenberg and Lees, 1985). Nowadays, the concentration of human capital and the high-added value of the activities performed in large cities is a marked feature of developed and emerging economies. The fact tat proximity still matters in business may strike the reader as odd or surprising at the age of Internet, but is entirely commonplace to urban economists, economic geographers and some others. Somewhat paradoxically, this is largely due to the low transport and communication costs that prevail today. Although they allow for the location of standardized activities in remote, low-wage countries, big cities remain very attractive to those activities where access to information and technology is of prime importance. Firms operating in industries that undergo rapid technological changes must be able to react fast to market signals and to design specialized and sophisticated products, especially when competition intensifies. All of this increases the need for proximity, which involves firms’ strategic divisions, such as management, marketing, finance, and R&D, as well as business-to-business services (advertising, legal and accounting services) and divisions of high-tech industries. Urban metropolises typically attract such activities, consisting both of skilled workers and firms producing high-value added goods and services.

At first sight, Belgium does not seem to have cities large enough to be affected by those long-run trends. And yet, Brussels, hosting the main European Union institutions and several other international bodies such as NATO, enjoys a much higher ranking in the European urban hierarchy than it could claim by virtue of its population size. This suggests, therefore, that the Belgian economy and its spatial structure are affected by those on-going urban developments.

Through a series of maps, the first section of this paper provides a simple but suggestive overview of the urban structure of the Belgian economy. By showing a picture of the Belgian economic space different from the standard north-south cliché, our observations will come as a surprise to some
readers. Both in demographic and economic terms, Belgium looks very much like a monocentric economy, with secondary centres of various sizes. This spatial structure is not a historical accident; rather it obeys economic forces that are found in most developed countries. The second section briefly sets out the main results of urban economics that explain the spatial organization of the Belgian economy. We conclude with a short discussion of the main implications of our approach for the future of Belgium.

1. The spatial organisation of the Belgian economy

The Gross Domestic Product (GDP) of an area measures its level of production, as determined by the volume of its ongoing activities. In 2005, 19.0% of the GDP of Belgium was produced in Brussels-19 (B-19), 25.6% in Brussels-Halle-Vilvoorde (BHV), and 32.8% in the former province of Brabant. However, the GDP of an area is strongly correlated with its population size. This is why the GDP per capita appears to be a better measure of the productive efficiency of a given area. Figure 1 shows the spatial distribution of GDP per capita by districts (“arrondissement”) in 2007 just before the crisis: B-19 is the leading district just before those of Antwerpen and Halle-Vilvoorde.

Figure 2 shows how the accumulated value added per capita from 1995 to 2007 has been distributed across districts. A value 1 means that the GDP per capita of a district has grown at the same rate as the GDP per capita in Belgium. The districts coloured in red undergo high growth rates (> 1), whereas those coloured in blue have low growth rates (< 1). This map reveals a fairly similar spatial structure as Figure 1 since the top-3 includes Brussels, Halle-Vilvoorde and Mechelen. This last district benefits from being located between the two major Belgian cities, to which it is especially well connected. Figure 2 also confirms that several Walloon districts have not succeeded yet to get rid of the legacy of their old, negative clusters. Note, however, that the Brabant Wallon does as well as Antwerpen and better than Leuven.

The GDP per capita loses its relevance as a measure of individual welfare when a substantial share of workers does not live within the area itself. This is precisely what is going-on in B-19. According to the 2001 Census, the B-19 labour force involves 494,310 workers with 40.2% of them living therein, which means that 60% live outside B-19, 196,665 coming from Flanders and 98,779 from Wallonia. In this case, the Gross Regional Product (GRP), which measures the share of the
national GDP accruing to the residents, provides a useful complement. In B-19, the contrast between the GDP and the GRP is startling. In 2003, 19.2% of the GDP of Belgium was produced in B-19, but the production attributable to residents of Brussels (GRP) was only 11.53% - and 11.37% in 2006 (personal communication from Michel Mignolet). Although this low percentage seems to be the sign of a mediocre economic performance, it is worth stressing that the share of the GDP produced by the residents of B-19 exceeds the share of its population in the total number of workers having a job in the city-capital. To sum-up, B-19 contributes disproportionately to the overall wealth of Belgium, with a substantial share of that wealth not being returned to its inhabitants.

In order to gain some further insights about the spatial distribution of individual welfare, we use in Figures 3 and 4 the households’ gross income provided by the fiscal administration. Not surprisingly, the three neighbour districts of B-19 do extremely well because a large share of high-income commuters lives therein. In contrast, the average income in B-19 is quite low since it belongs to the group of the bottom districts. This is confirmed by its very poor relative growth: B-19 belongs to the bottom-3. Thus, it seems very likely that the poor socio-economic situation of B-19 has been degrading for quite a few years. Note also the high level and relative growth of income per inhabitant in southern Belgium despite a low GDP per capita. This is explained by the large numbers of commuters between Luxembourg and the southern districts where housing costs are much lower than in the Grand Duchy.

Figure 3: Income per capita in 2007 (by districts).

Figure 4: Evolution of income per capita from 1995 to 2007

The commuting structure between residence and workplace is a widespread and resilient phenomenon. It is one of the key-criterion that allows one to map the hinterland of an area (Dujardin, Thomas and Tulkens, 2007; Luyten and Van Hecke, 2007). Figure 5 depicts the commuting hinterland of B-19.
In order to have a broader idea of the role played by Brussels, we must also figure out how attractive the neighbouring districts are. Table 1 gives the number of workers living in the four Flemish provinces (without Vlaams Brabant) and the four Walloon provinces (without Brabant Wallon) and working in one of the districts of the former province of Brabant: B-19, BH, Nivelles, and Leuven (note that BHV + Nivelles form the Brussels Metropolitan Region proposed by BAK Basel Economics). This table shows that not only B-19, but the neighbouring districts too, attract a substantial number of workers from the other Belgian provinces. Thus, whatever the definition used to define the metropolitan area of Brussels, we can safely conclude that the economic hinterland of Brussels covers an area that expands well beyond B-19. Note also that, in 2001, there were 2,506,516 workers residing in Flanders and 1,2066,82 in Wallonia. Therefore, the shares of Flemish and Walloon workers holding a job in B-19 are very similar (7.8% and 8.2%, respectively).

<table>
<thead>
<tr>
<th>Job/Residence</th>
<th>B-19</th>
<th>Brabant - B-19</th>
<th>Flanders*</th>
<th>Wallonia*</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-19</td>
<td>198868</td>
<td>151781</td>
<td>84966</td>
<td>58695</td>
<td>494310</td>
</tr>
<tr>
<td>Halle-Vilvoorde</td>
<td>18099</td>
<td>103699</td>
<td>35499</td>
<td>6897</td>
<td>163864</td>
</tr>
<tr>
<td>Nivelles</td>
<td>6796</td>
<td>52438</td>
<td>1662</td>
<td>23866</td>
<td>81438</td>
</tr>
<tr>
<td>Leuven</td>
<td>1444</td>
<td>95325</td>
<td>20181</td>
<td>1187</td>
<td>118137</td>
</tr>
</tbody>
</table>

(*Without the former Province of Brabant)

It is well documented that skilled workers tend to agglomerate within a few clusters, typically large cities. To be more specific, spatial income disparities are, to a large extent, explained by the location of human capital.1 To the best of our knowledge, there is no in-depth study of the spatial distribution of human capital in Belgium. Figures 6 and 7 are built from census data: the former depicts the geographical distribution of workers having a higher education degree in 2001, while the latter gives the relative evolution between 1981 and 2001 (districts that evolve faster than the

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national evolution are coloured in red). Both maps confirm that the former province of Brabant attracts a very large share of high-skilled workers. Admittedly, this is partially driven by the presence of several large universities located therein. However, one should remember that we face here an egg-and-chicken problem: high-skilled workers are attracted by places where they can find suitable jobs, while firms locate their high added-value divisions where such workers are available. In other words, the causality is both reciprocal and cumulative. Going into further details is beyond the scope of this paper.\(^2\)

**Figure 6:** Percentage 18-64 Population with Higher Education in 2001 (by districts)  
**Figure 7:** Percentage 18-64 Population with Higher Education: Relative Evolution 1981-2001

Last, it is worth looking at the structure of housing prices. It is a well-documented fact that attractive areas are characterized by high rents because competition for land use and housing is tougher. The four maps of Figure 8 shows the spatial structure of housing rents from the lowest (< 240€) to the highest (> 743€) rent. The picture slightly differs from what we have seen so far as it reveals the attractiveness of the south-eastern part of Brussels, which extends up to Namur.\(^3\)

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\(^2\) See Brakman, Garretsen and van Marrewijk (2009) for a more detailed analysis.

\(^3\) A more detailed analysis may be found in Goffette-Nagot, Reginster and Thomas (2010).
The upshot of all of this for the spatial organization of the Belgian economy is clear: Brussels and its periphery is, to a large extent, the main economic pole of Belgium. This claim seems to clash with the existence of a high unemployment in B-19. There is no contradiction anymore once it is recognized that the definition of the limits of Greater Brussels strongly affects this statistics. In 2006, the participation rate is 48.8 in B-19 but reaches 56.0% within the area formed by BHV and the Brabant Wallon, and 58% for the former province of Brabant. Again, this agrees with the fact that half of the workers operating in B-19 do not live therein.

In what follows, we provide the main theoretical insights that may be used to understand the spatial organization of the Belgian economy and the role played by Greater Brussels. Our hope is to convince the reader that the observations collected in the foregoing agree with spatial patterns prevailing in many countries, which can be given sound and meaningful explanations.

2. Is Brussels an exception?

The increasing availability of high-speed transportation infrastructure and the fast-growing development of new informational technologies might suggest that our economies have entered an age that would culminate in the "death of distance." Things are not that simple, however. Modern economies, whether in Europe, the U.S. or Japan, are increasingly organised around (very) large cities, and this is also the spatial development model that China has adopted. Many reasons explain why this pattern has emerged. Technological progress brings about new types of activities
that greatly benefit from being agglomerated. The wealth of cities and regions seems to be more and more related to the existence of innovative and competitive clusters, which often show a taste for cities, as well as to the presence of metropolitan areas that provide a wide range of goods and skills, while facilitating the circulation of ideas and information. For example, in 2000, the 38 largest metropolises in the European Union covered less than 1% of its territory but accounted for 27% of jobs and generated 29.5% of its gross domestic product (OECD, 2006).

In what follows, we briefly present the main ideas that have been recently developed in urban economics and economic geography. They help provide a sound theoretical background to the descriptive analysis of Section 1. It is worth stressing here that the cities’ features discussed below are well documented from the empirical point of view. For example, a doubling of employment density increases productivity by between 3 and 8 percent for different types of cities. Within the limits of this e-book, we cannot provide a detailed survey of what has been accomplished in the fast-growing field.4 Despite the conciseness of our overview, we hope to provide enough insights to explain the general pattern uncovered by the cartographic analysis of Section 1.

The supply of jobs, goods and services

Firms located in big cities have a good and direct access to a large pool of skilled workers, whom they need for their most strategic activities. In parallel, skilled workers find more and better job opportunities in large cities, which allow them to use their knowledge and training. Eventually, this leads to a better matching between jobs and workers on specialized and fragmented local labour markets. This in turn promotes higher investments in human capital because workers may expect higher and/or faster returns. Several recent studies have highlighted the correlation between city size, workers’ skills and wages, as well as firms’ productivity.5 Figure 5 shows how important the search for a good match and a high income is important to a large number of Flemish and Walloon workers. In addition, Figure 7 confirms the idea that human capital is increasingly attracted by Greater Brussels.

Large cities also provide a wide range of specialized intermediate goods and services, which allow for a higher productivity of firms. This is all the more important as firms are now able to break their value chain by relying on outside suppliers to perform some activities. The outsourcing strategy has occurred primarily because firms want to focus on their core competencies due to the increasingly competitive environment in which they operate. In other words, the vertical disintegration of firms makes the proximity of suppliers an increasingly important location factor (Ellison, Glaeser and Kerr, 2010). Again, this may come as a surprise since shipping goods has never been so cheap. This argument disregards an important fact: a growing number of inputs get more and more sophisticated and even specific to the customers, thus requiring frequent contacts between the supplier and the customer.6 In sum, the division of labour is finer in large and dense urban environments.

The broader range of opportunities faced by consumers is another facet of the same process. While the steadily decline in transport costs and the progressive dismantling of tariff barriers has vastly improved the access to foreign goods, the concomitant increase in competition has encouraged firms to restore their profit margins by supplying new and more differentiated products and services. This allows households living in large cities to enjoy a wider range of goods and services,

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4 See Polèse (2009) for a rigorous but free-jargon overview of the literature. A more detailed and analytical presentation of the literature can be found in Brakman, Garretsen and van Marrewijk (2009). Rosenthal and Strange (2004) provide ample evidence of the impact and magnitude of agglomeration economies, while Puga (2010) surveys the most recent empirical contributions.

5 See Brakman, Garretsen and van Marrewijk (2009) for more details.

6 To illustrate our point, it is worth mentioning a business survey conducted by the INSEE (France) in the Région Nord-Pas de Calais about firms’ most-preferred environment. It shows that the presence of local suppliers is the characteristic that firms rank first (Benard, Jayet and Rajaonarison, 1999). What makes this example especially interesting are the similarities Wallonia and the Nord-Pas de Calais.
which improves their standards of living. This effect becomes more pronounced once it is recognized that the hierarchy of public services is often the mirror image of the urban hierarchy. In other words, big cities allow for a better match, not only between jobs and workers, but also between products and consumers’ needs.

To sum up, large cities can rely on broader ranges of business-to-consumer (b2c) and business-to-business (b2b) services to attract high-tech and specialized suppliers as well as skilled workers who are themselves looking for high-quality services, which are typically available in large cities. Likewise, firms producing consumer services, which are often less mobile than goods, are also incited to set up in big cities because they find a wider market there. In a nutshell, a large city may be viewed as a magnet attracting various types of firms, workers and households.

**Spatial externalities**

As mentioned above, the spectacular fall in transport and communication costs has led many observers to predict the decline, or at best the stagnation, of cities - some had done so just after the spreading of the telephone. However, large cities are still the preferred location of service activities for which the circulation of information and the emergence of new ideas remain critical (Jacobs, 1969; Saxenian, 1994). To understand why it is so, we must keep in mind the distinction between tacit information and codified information. If information is to be transferred using modern communication devices, it must first be structured according to schemas and codes that are clearly defined and known to all. Once this has been accomplished, information can be distributed worldwide at no cost. In this case, the entire world does, at least in theory, have access to a mass of information that exceeds by far what used to be available in even the best university libraries.

In contrast, information that is difficult to codify can very often be transmitted only through face-to-face contacts. In particular, the preliminary stages in the development of a new technology or new product require repeated contacts among those involved and such contacts are still much easier under conditions of physical proximity. Even at the age of Internet, knowledge and information cross corridors and streets more easily than continents and oceans. In addition, such informal exchanges of information generate a number of externalities. When firms possess different types and pieces of information, pooling them, even in part, through informal communication may benefit everybody. Such communication externalities may be encountered in fields as diverse as management, research and development, administration, and finance. Their fast circulation is more important than earlier because firms’ reactivity is crucial in a globalizing world in which competition gets harsher. Those benefits also increase with the number of players. Hence, large cities remain the favoured locations for information-consuming activities, especially when firms operate in a context of rapid technological change and intense competition (Van Puymbroeck and Reynard, 2010). To become concrete, communication externalities need a socio-economic environment permeated with skill and knowledge that large cities typically provide.7

In brief, the pool of workers and firms available in a big city blends with the information spillover effects to turn the city into a location-specific public good, which acts as a powerful production factor for the local firms. One should emphasise that this public good is rarely the outcome of public initiative alone. It is often the outcome of countless decisions made by private agents that local government and public bodies can encourage or discourage by their actions. When the social climate is bad and/or political governance inefficient, information exchange - if any - will at best consist of mitigating these different kinds of inefficiency. In this case, the city deters the dissemination of ideas and information useful to firms and workers. Quite the opposite: it generates

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high transaction costs and time-consuming discussions that prevent it from facilitating the dissemination of information useful to economic agents and building the factors that strengthen the city's competitive advantage. It is, therefore, not surprising that the economic performances of seemingly similar cities are in fact very different.

**The spatial organisation of firms and markets**

Since the beginning of the Industrial Revolution, there has been a tendency to view firms and production plants as being the same objects. Bringing all firm’s workers “under the same roof” corresponded to a level of technological and scientific development that is very different from ours. Today, a growing number of firms are footloose and choose to break down their production process into various stages spread across different places, together with a strong decline of the share of in-home production, Dell being probably the case best known to the general public. Specifically, the modern firm organizes and performs its activities in distinct locations, which altogether form the value chain starting at the conception of the product and ending at its delivery. Because transport and communication costs are very low, this spatial fragmentation of the value chain allows firms to take advantage of differences in technologies, factor endowments, or factor prices across places (Spulber, 2007). The most commonly observed pattern is such that firms relocate their production activities in low-wage regions or countries, while keeping their strategic divisions concentrated in a few urban regions where the high-skilled workers they need are available. To a large extent, this explains why manufacturing plants have left cities (Audi-Forest being one of the few exceptions) to set up in less densely populated areas where land prices are lower or in low-wage and lax-environment countries, whereas headquarters and research centres are still located in a few affluent cities.

At the urban scale, a similar phenomenon is observed: front-offices are located in the centre-city, while back-offices are moved to the urban periphery where land rents are much lower. Such locations also make workers’ commuting shorter. As both transport and communication costs have tremendously decreased, the spatial extent of agglomeration economies has grown, which in turn facilitate the decentralization of some jobs and activities within expanding metropolitan areas (Glaeser and Kahn, 2004).

Simultaneously, firms have developed the policy of customising products to optimise economies of scope through the use of flexible manufacturing. In some instances, they can supply an enormous number of variants of the same basic product (up to 32,000 in some Japanese car factories). Such a sales policy, in conjunction with intense input-output relationships and just-in-time strategies, goes hand in hand with faster delivery to customers and more frequent calls on suppliers. Such changes in firms’ management and in the functioning of markets necessitate a significant growth in logistic services (think of the growth of Brussels airport as a logistic centre). The costs of logistic services are lower within integrated production systems that can fit well into large urban areas.

Although the new communication technologies have undoubtedly had, and will have, a considerable impact on business life, one must not exaggerate their importance, as the invention of the telegraph and telephone had already drastically reduced the amount of time needed to transmit information. During the Renaissance, for example, it took an average of 15 to 16 days for a letter to travel between Avignon and Paris, 25 to 30 days between Florence and London, and 20 to 22 days between Florence and Paris. For example, it took 358 hours in 1650 to go from Paris to Marseille but only 38 hours in 1854 and only 3 hours in 2002. Therefore, the on-going changes observed in transport and communication costs are not as new as it is thought in the public at large.
Urban sprawl, a universal phenomenon

Where to draw the economic borders of a city is a tricky question to answer. However, whatever the definition, there is a remarkable consensus among economists and geographers to consider that the relevant economic unit is the metropolitan area, which is much broader than the centre-city. Households typically have a preference for large plots against small ones. Due to high land prices within the city and the increasing adoption of individual cars, which has given people far greater freedom of choice in where to live, consumers choose longer work-trips in order to benefit from larger housing in neighbouring areas where land prices are lower. In addition, very much as agglomeration economies, the spatial extent of social interactions has grown thanks to faster and more efficient transport and communication devices. This is the well-known phenomenon of “urban sprawl”, which characterizes most cities (Brueckner, 2000). Thus, the so-called “tâche d’huile” (“olivlek”) associated with the geographical expansion of Brussels is definitely not an exception. Urban sprawl has even been described in very extreme forms: several years ago, the United States House of Representatives observed that American cities looked very much like Swiss gruyere, with more holes than cheese.

In Greater Brussels, unemployed and low-income people are predominantly located in the city-centre, whereas medium- and high-income consumers set up in the urban periphery where they also enjoy various natural amenities (Dujardin, Selod and Thomas, 2008; Willaert and De Boosere, 2005; Verhetsel et al., 2009). This pattern is very similar to the one displayed by U.S. cities, where the unemployment rate is much higher in the centre-city than in the suburbs. In contrast, quite a few European cities show the opposite pattern with the high-income people located by the centre-city, such as London, Paris, Barcelona or Milano. This difference in the social stratification of cities seems to be due to the fact that those European cities provide historical amenities that are appealing to high-income consumers (Brueckner, Thisse and Zenou, 1999). That Greater Brussels follows the same pattern as the U.S. cities might well be explained by the fact that a substantial part of the historical centre has been demolished and replaced by office buildings, especially in the 1960s and 1970s, a phenomenon that has been dubbed “Brusselization” by disapproving Europeans.

We find the same phenomenon of decentralisation as regards to jobs, although the general trend is not as pronounced as it is for housing. A growing number of firms choose to get rid of their city land holdings to move to neighbouring, less congested and cheaper areas, especially when they are big land-users, thereby benefiting from the conversion of their old sites into offices or apartments. These firms often regroup to form secondary business centres located at or close to the city outskirts. This location strategy allows them to keep benefiting from the above-mentioned agglomeration economies thanks to low communication costs, while being able to operate in cheaper and/or nicer and less polluted areas. The Brabant Wallon and the district of Leuven provide neat examples of such an evolution. However, relocations are often limited to some specific firms or activities.

Thus, cities tend to become polycentric. Although such an urban structure is typical of the largest cities (of several million of people), the same trend is at work almost everywhere (MacMillen and Smith, 2003). Even when they remain predominantly monocentric, cities expand beyond their historical and administrative boundaries to include their peripheries, where firms and households move and settle down. Therefore, the modern city must be seen in this broader context, otherwise the analysis will be distorted. More important, when workers have a low spatial mobility, the

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8 The problems raised by the delineation of “Greater Brussels” are further discussed in the appendix.

economic performance of a metropolitan area is negatively affected by a strong difference between its political and economic boundaries. This is because workers do little arbitrage across places and lobby to get the best living standards where they reside (Cheshire and Magrini, 2009).

Concluding remarks

Tough still very preliminary, our analysis highlights a geographical distribution of production and income that differs from the standard North-South cliché: to a large extent, the Belgian economy exhibits a monocentric structure dominated by Brussels, as shown by the attractiveness and economic dynamism of the neighbouring districts of B-19. Thus, it seems fair to conclude that both Flanders and Wallonia greatly benefit from B-19 as well as from Greater Brussels (whatever its definition). This has a major implication for the Belgian economy as a whole since, as observed by Lucas (1988), the agglomeration forces discussed in Section 2 are often the sources of the increasing returns that lead to growth. Yet, this fact runs against general beliefs prevailing on both sides of the linguistic border. In this respect, it is worth citing here Cheshire and Gornostaeva (2002) for whom “Most Belgians have great difficulty with the idea that Brussels extends beyond the confines of its administrative boundaries which define the limits of the national bilingual zone and contains less than one million inhabitants.”

Having this in mind, it should be clear that a better governance of Greater Brussels (e.g. mobility, environment, fiscal policy, land use) would be beneficial to the whole country and its regions. In contrast, a deeper political fragmentation of the metropolitan area is likely to be detrimental to all. Free-riding on the centre-city is commonplace all over the world, and Brussels is not an exception. As noted by Bruce Katz of the Brookings Institution, “metro governance is almost uniformly characterized by fragmentation and balkanisation, by culture of competition rather than one of collaboration.” Therefore, finding a smart and cooperative strategy for boosting the economic growth of Greater Brussels is a “must” for the most globalised economy in the world.

REFERENCES


Appendix: What are the limits of Greater Brussels?

Defining the limits of an urban agglomeration is a well-known conceptual problem in geography (see, e.g. Le Gleau, Pumain and Saint-Julien, 1996; Cheshire and Gornostaeva, 2002). No consensus is reached about the methods to be used for defining the border of a city, simply because the objectives often differ: are the borders defined for transport planning, tax raising or electoral purposes? This has led geographers to put forward the need for a multi-criterion approach, which accounts for morphological as well as functional variables such as population and/or employment densities, commuting directions and their respective intensities.

The problem in defining the limits of Greater Brussels is, therefore, different from a geopolitical discussion about the political problem of enlarging B-19. For many years (see, e.g. Mols, 1969; Van der Haegen and Pattyn, 1979), scholars have agreed that Brussels is a radio-concentric city, which sprawls far beyond the limits of B-19. What makes the problem of Brussels so tricky is that Brussels sprawls into two different linguistic and political regions. As a result, the administrative limits of Brussels do not represent morphological borders, employment areas or socio-economic realities.

Van Hecke et al. (2007) have recently proposed to distinguish between what they call the “urban region” (also called hinterland, catchment area, tributary area) with 62 communes and the “urban agglomeration” with 36 communes (19 + 17). The 17 additional communes describe the suburbs of Brussels, while the other 26 (62 – 17 - 19) define its hinterland, which extends into the districts of Halle-Vilvoorde, Leuven and Nivelles (as well as Enghien and Silly). In Map A, B-19 in dark brown, the urban agglomeration in orange (B-19 + 17 other suburban communes) and the urban region in pale orange (total of 62 communes). It is worth noting that the spatial penetration of Brussels is stronger in Wallonia than in Flanders. This is due to the existence of other urban regions in Northern Belgium (Mechelen/Antwerpen, Leuven, and Aalst/Gent).

Map A: Definition of Greater Brussels

- Brown = Brussels Capital Region (also noted here B-19)
- Brown + Orange = “Urban agglomeration”
- Brown + Orange + Beige = “Urban region”