PAPERS 50 EUROPEAN METROPOLITAN AGGLOMERATIONS

PRESENTATION

Talking of population in Europe is almost synonymous to talk about cities, about urban areas with thousands of inhabitants where economic activities are concentrated. It is to refer to the nodes that are centers of the regions that surround them, the links between the flows that define a worldwide network of global relationships.

In the early years of 21st century, the European Union is expanding in different ways. On the one hand, adding new countries, and so, adding new urban realities mixed with more consolidated areas; on the other hand, with the strengthening of their relationships with its own surroundings, especially with the Mediterranean south coast countries. The launch of the Union for the Mediterranean is another step towards the construction of a Europe that wants to reinforce a social space of coexistence. In this scenario cities play an important role thanks to its capacity to revitalize and unify their surrounding regions.

The consolidation process of this euromediterranean space depends, among other aspects, on having an exhaustive knowledge of the economic and population structures that defines it. Also, depends on studying the cities and urban areas that extend beyond its administrative boundaries and that form large metropolitan agglomerations. We present in this issue of PAPERS journal, the results of the analysis of the urban areas of the 25 countries that formed the European Union in 2006. It would be very interesting to apply this analysis to all the countries that make up the Union for the Mediterranean, an organization committed to the construction of a common Mediterranean space and that have located its secretariat in one of the European large metropolitan agglomeration, Barcelona.

This study has been carried out by the Servei d'Estudis Territorials de la Mancomunitat de Municipis de l'Àrea Metropolitana de Barcelona and continues the one wrote in 2002 and published in the issue 37 of PAPERS journal. It is important to point out the novelties in this edition. First, the area of study has been widened and now includes those 12 countries that joined the European Union in 2004. Second, a new chapter has been added with the reasons of the complexity of government

entities and the competences of different metropolitan agglomerations. Finally, new information about the 14 countries studied in 2002 is presented allowing the analysis of the evolution of these agglomerations during these years.

The result is a monographic issue based on the statistical and cartographical information (cities that make it up, size and density) and on the metropolitan government of each metropolis. 104 metropolitan agglomerations are identified in 20 countries using the same methodology developed in 2002. The methodology analyzes a straightforward and widely available variable: the number of inhabitants. It allows the identification of urban municipalities and metropolitan areas in all the studied countries. Despite of its constraints, it is a method that shows, using urban densities, some of the hierarchical relationships in higher population areas. Also, it permits mapping urban agglomerations, showing clearly that they form urban constellations spreading outside the boundaries of European Union countries.

METROPOLITAN AGGLOMERATIONS

URBAN EUROPE AND METROPOLITAN GOVERNMENTS

Urban Europe configuration

Almost 300 million people are concentrated in the urban areas of the European Union countries. Some 65% of the population live on 9% of Europe's land surface. These urban areas have developed around cities that over a long period absorbed the rural exodus and became cores of economic activity, culture, communication, research and development.

At a later stage, the processes of residential and industrial sprawl shifted population and activity out into the metropolitan hinterland around the urban core. Many peripheral municipalities were incorporated into the orbit of influence of the cities. In this respect, more recent growth has been less along the lines of an increase in the concentration of the population of urban areas and more in terms of the extension of their boundaries, that is, of their edges. Today most suburban environments show stronger population growth than their cities.

However, the distribution of this urban occupation over the continent is uneven. The cluster of agglomerations that condenses on the land surface can be explained by both historical and geographical factors, and ultimately gives rise to two different patterns of land use.

On one side, there is a diffuse, homogeneous distribution that extends through central European countries such as France, Belgium, the Netherlands, Germany, Poland, the Czech Republic, Slovenia and Slovakia. This model is reminiscent of the urban grid systems of Christaller's theory. Urban agglomerations are distributed to form a network of relatively equidistant central places that have two or more levels of demographic concentration. This pattern extends over regions with high levels of occupation.

On the other side, there is a form of distribution that draws points and lines of demographic concentration on the map of Europe. These correspond either to urban cores that spread their influence radially over the surrounding region or to linear strings of agglomerations.

Examples of cores are the cities of Paris, Madrid, Berlin, Hamburg, Munich, Budapest and Prague. They have a radial structure of polarisation and deconcentration, and they spread out in any direction that is not conditioned by geographical features.

Linear clusters of agglomerations, on the other hand, generally respond to the configuration of certain geographical elements, such as the Rhine basin, which has a total population of 15.5 million living between Friedrichshafen, on Lake Constance, and Rotterdam, via Basel, Karlsruhe, Mannheim, Frankfurt, Cologne, Essen, Arnhem and Amsterdam. These cities and urban agglomerations follow the course of the river from the Alps to its mouth on the North Sea.

Lying crosswise to the Rhine agglomeration there is another continuous line of urban municipalities from Hanover to Calais, via Bielefeld, Dortmund, Düsseldorf, Liège, Brussels and Lille, with a total population of 20.5 million. This agglomeration reaches the Strait of Dover, the narrowest point in the English Channel, Calais being the traditional port communicating France with the UK, and it could be considered to continue on the other side of the Strait with the conurbations of London, Manchester and

Liverpool, which accumulate another 31.1 million inhabitants.

South of the Alps, we find the cluster of urban municipalities of the Po basin, which stretches from Turin and Milan, at its western end, through Brescia, Verona and Padua, finally reaching Venice and the urban sprawl of the Veneto, at the foot of the Dolomites. It also embraces, on the other side of the valley, Parma and Bologna, at the foot of the Apennines. The urban agglomerations of this basin trace perfectly the valley that lies between the Italian Alps and the Apennines.

Tracing other river valleys, we find the line that joins the cities of Dijon, Lyon and Marseille in the Rhone valley; in the Garonne valley there is Toulouse and Bordeaux, and further north, in the Loire valley, the cities of Orléans, Tours and Nantes. If we follow the Danube we come across the cities of Linz, Vienna, Bratislava and Budapest.

Another characteristic form of urban concentration has been that of coastlines. Although this was linked historically to the establishment of trade networks, in the second half of the 20th century these regions have also become consolidated as tourist resorts and first-home residential areas. The most extensive line of coastal agglomerations is to be found in the Mediterranean, from Málaga to Genoa, passing through Almería, Alacant, Valencia, Barcelona, Marseille and Nice. It is an agglomeration of a diverse nature, with a succession of industrial cities, centres of agricultural production and distribution and tourist resorts. Another coastal urban continuum, in which tourism alternates with some commercial ports, lines the Adriatic coast, with cities such as Rimini, Pesaro, Ancona, Pescara, Foggia, Bari and Brindisi.

Urban Europe process shows that the densification of land use follows patterns linked to the specific geographical characteristics of each place and the history of settlement in each country, but at the same time there are common features that are widespread throughout the continent.

Lastly, we should mention that in some situations urban systems have spilt over international borders. Cities grow regardless of the conditioning factors imposed by administrative limits. First of all municipal limits were crossed, on many occasions regional boundaries have likewise been ignored, and finally urban conglomerations are beginning to take on a transnational character. The formation of all these new continuities will redefine the great network of cities of the European continent.

Municipal divisions in Europe

European municipal divisions tend to have a historical origin linked to the distribution of power with a view to controlling territory. The mosaics they form, mostly arising from feudalism, have lived on to this day.

At first, the land covered by each municipality was of sufficient size to withstand the growth of its built-up areas and the economic activity carried on within its territory. But with the passing of time, some of these cities have grown spectacularly, to the extent that the municipality has become too small to take in the entirety of its urban activity. These situations highlight the contradiction between the material reality of cities and their administrative boundaries.

Over the last 50 years, in order to adjust the existing administrative limits to the real city, some cities have opted to annex adjoining territory by absorbing other municipalities. There have also been cases of two municipalities merging to create a new one, which sometimes takes the name of the larger of the two and sometimes takes a new name. However, today such procedures are unpopular among the municipalities that would be annexed because of the associated loss of identity and autonomy.

The spreading of democratic and participative political systems, achieving high degrees of municipal autonomy, strengthens local identities and makes these operations increasingly improbable. As a result, the map of municipal boundaries is very rigid and shows a great resistance to changes. Nevertheless, these mergers and annexations of municipalities still happen occasionally.

Cities may again find themselves at odds with existing divisions at a higher level of government than the municipal, namely that comprising political and administrative bodies of state decentralisation such as regions, autonomous communities and provinces. In fact, the various forms of territorial decentralisation of the state respond to criteria for the administrative distribution of space that have nothing to do with urban agglomerations because they were fixed when these agglomerations did not even exist. In this case there is also strong resistance to the recognition of metropolitan entities, as today big cities concentrate such a huge population and economic weight that any proposal to translate this into specific forms of political organisation is viewed by regions and states with considerable mistrust.

In the case of the municipalities, in addition to the resistance to merge into a larger body as mentioned above, sometimes there is also reluctance to recognise the existence of the metropolitan reality. The idea of coordinating to reach consensus decisions in the joint interest of several municipalities is not always positively valued in local political culture, which is often mediated by atavistic attitudes towards the inhabitants.

Conflict is to be found, then, between urban agglomerations and administrative areas both at the municipal level and on that of higher administrative bodies, and indeed often on both levels simultaneously.

Metropolitan phenomena and changing patterns of urban growth

The economy of the European countries grew steadily, with few setbacks, in the second half of the 20th century. The evolution of the gross domestic product shows a permanent increase in wealth, and European countries have therefore been getting richer and richer since 1950. This wealth is concentrated mainly around the big cities, which act as organised systems sustaining and promoting economic activity. This consolidated pattern is strong enough to resist the 2008 crisis that will stop and even decrease the growth of GDP in almost all the european countries.

At the same time, the points at which this economic growth occurs attract migratory flows, encouraged by the prospect of achieving a particular standard of living. In this regard, the degree of attraction that cities exert on the population around them or more distant areas is a reflection of their economic dynamism.

For decades, European metropolises have amassed growth in both population and activity, and have become larger and larger. These growth processes were initially concentrated around the central cores, when the pattern of mobility between home and workplace was more short-distance. Most travelling was on foot or by means of an incipient network of public transport, and the city resulting from this was a compact one.

Starting in the 1940s, this twofold model of economic growth and migratory flow was overlaid by the transport revolution, which unleashed the mass dissemination of the private car as a new consumer good. The popularisation of the private car, coupled with policies of ongoing investment in road infrastructure networks, brought about a structural transformation of the transport model throughout the industrialised world. The ability to move about more rapidly and without restrictions with regard to timetables and routes made distances shrink and rendered accessibility more even. Residents and workers had access to a much larger area, and most urban activities could be located anywhere in a much wider radius. This new mobility model was more

versatile and dynamic and at the same time resulted in a much more disperse city, where population, economic activities and services spread over the territory.

The compact and concentrated growth process of cities was thus succeeded by a new way of situating people and activities that has led to an indiscriminate occupation of space and to territorial dispersion. A large proportion of the urban relations that until 70 years ago occurred within one municipality have now become relations within a network of towns belonging to different municipalities.

The cities of the 21st century are extensive and complex, and are fed by flows of people, energy, activity and goods. Furthermore, they are urban agglomerations that take in supramunicipal areas.

Metropolitan governance

The multimunicipal nature of metropolitan agglomerations raises the issue of governance, as municipal authorities are unable to respond individually to the metropolitan phenomena that always affect much larger areas than the municipality itself. There must be some sort of government to organise and manage the territorial, social and economic aspects that simultaneously affect a number of municipalities. The various municipal authorities involved need to be coordinated, or there has to be some higher-level political structure to deal with the issues that arise in urban agglomerations.

In the face of this widespread need for administrative structures to organise the policies of Europe's urban agglomerations, solutions have been adopted that give rise to a great diversity of institutions at local, regional or state level. Typifying present forms of metropolitan government in Europe is a complex task, but nevertheless we propose a classification taking into account the five variables set forth below. The combination of these institutional, political and jurisdictional variables yields a specific form of government in each agglomeration.

Powers

The administrative powers involved are the first factor to bear in mind in any comparative analysis of metropolitan institutions, because as well as knowing who governs we want to know over what affairs they govern. It is only possible to compare governmental institutions in relation to the same political powers. If one metropolitan institution has powers over transport and another one has powers over security they will not be comparable because they deal with objects of a different nature. The most usual ones tend to be urban and regional planning,

management of public transport, the water cycle and waste disposal, economic promotion and tourism, health services, fire prevention and security.

Institutional level

Territorial power is wielded from the various strata of the institutional continuum that runs from the level of the state to that of the municipality. Between these two extremes we find different forms of political or administrative decentralisation of the state and forms of association or coordination of local governments.

The comparison of the various levels of government between European countries presents many difficulties because the way each country is organised territorially and the administrative categories that are derived from this are not homogeneous. Nevertheless, some correspondences can be drawn that enable us to get a general overview. To this end we provide a table of equivalences of the various administrative levels of European Union countries, based on the data provided by the European Commission and Eurostat.

Each of these administrative levels forms part of a hierarchical order that is specific to each country and organises power in a particular political and territorial context. In some situations, one of the administrative levels coincides with the area of a metropolitan agglomeration, but this is not usually the case.

If governance is approached from a more specifically metropolitan perspective, we will find even more institutional levels that are not reflected in the table above, such as voluntary associations of municipalities, specific corporations, sectoral agencies and specifically metropolitan institutions derived from some ad hoc legislative provision.

Legal recognition

If we analyse the above classification from the viewpoint of the legal formalisation of metropolitan institutions, differentiating those of an obligatory nature – set up by state or regional law – from those of a voluntary nature, we can stress one essential feature. The latter are forced to arrive at solutions by consensus, which is very positive in that it generates a good climate of political and institutional cohabitation, but on the other hand makes it difficult to reach decisions for the common good when some of the associated municipalities are in manifest disagreement. In contrast, if the institution was set up under the provisions of a law that establishes the territory over which it has powers and endows it with a system of agreements by majority, the capacity to govern will be strengthened, as will agility in decision-making.

Capacity to govern

The practical implementation of powers can entail a series of actions of a different instrumental nature. The exercise of these actions presupposes various levels of capacity to govern that can be classified as follows:

– Determining policies and setting goals.

– Planning actions and control systems.

– Managing and administrating the means and resources to achieve the goals set.

– Coordinating and organising the actors and elements involved in implementing the programmes.

A body can have power to exercise, alternatively or simultaneously, the coordination, planning, management of the planning and definition of its own policies. But often we find that different bodies overlap and may exercise different levels of government action over the same area of responsibility. On other occasions, institutions manage policies that are decided at a different level, in practice acting as technical and/or sectoral agencies.

Financing

The financing system of Europe's urban agglomerations is directly related to that adjudicated to local authorities by each country. Here too we have a very wide range of situations, although the main components of the financing of metropolitan agglomerations are usually the following:

– Tariffs for the provision of services.

– Local taxes (on property, business activities, personal income, etc.).

– Financial transfers from the coordinated city councils.

– Transfers or subsidies from the state or the regional government.

Taxes on the provision of services tend to procure the self-financing of some of these services, or to control deficits between the real operating costs and the revenue from tariffs. Obviously these deficits, when they are assumed politically, can only be offset through subsidies.

The relative weight of each of the other types of financing in the make-up of the metropolitan finances is indicative of the level of financial autonomy or dependence. If the largest percentage of funds comes from sufficient own resources derived from local taxation, there will be greater autonomy than if the own resources are not sufficient and the major contribution

comes from state or municipal subsidies. Local taxation tends to be insufficient to meet the service provision obligations of local authorities. Only when local taxes are raised on income does local financial autonomy become significant.

Forms of metropolitan government

In the spectrum of institutions that can exercise government responsibilities in metropolitan agglomerations, situated at any point on the scale from the local level to that of the state, there is a band occupied by institutions with a specifically metropolitan outlook.

Some institutions are of a local nature and operate in one specific metropolitan territory; others cover a substantially larger area, as a result of a territorial subdivision of the state adopted aside from metropolitan dynamics. Nevertheless, as we mentioned earlier, institutional levels of state decentralisation, such as regions or provinces, may sometimes coincide with the metropolitan area. In these cases, the institutions concerned can in fact act as metropolitan governments, even though they were created for a different reason.

Below we list some of the different forms adopted by metropolitan governments in various European cities:

– **Local governments with metropolitan powers:** Warsaw, Katowice, Budapest.

– **Voluntary associations of municipalities:** the *Mancomunitat de Municipis* of Barcelona Metropolitan Area, the *Regionalverband Ruhr* in Cologne.

– **Specific bodies and sectoral agencies:** the Metropolitan Areas of Lisbon and Porto, the Regional Planning Agencies of Frankfurt/Rhine-Main and Munich, the Environment and Transport Authorities of Barcelona and Valencia, the Tyne and Wear Fire and Civil Defence Authority in Sunderland, the Greater Manchester Waste Disposal Authority, the West Midlands Passenger Transport Executive.

– **Consortiums:** Metropolregion Hamburg, Barcelona Metropolitan Transport Authority.

– **Provinces:** Stockholm, Vienna, Milan, Turin, Naples.

– **Regions with metropolitan powers:** Île-de-France, Madrid, Lazio, Piedmont, Lombardy, Campania, Brandenburg and Berlin, Nottingham, Prague.

– **Specifically metropolitan governments created by law:** Greater London Authority, the various *Communautés Urbaines de France*.

It is clear from the above that the institutional diversity is very great, and that even within the same country different solutions are adopted to organise supramunicipal realities. These solutions often entail overlapping institutions and duplicated powers, leading to malfunctions in the governance of these urban areas. In some cases, the tendency to reinforce some instruments of municipal cooperation prevails, in order to achieve a better management of common services, from the efficiency and effectiveness point of view.

In order to clarify this complexity a summary datasheet has been incorporated into the study, describing the institutions and the government responsibilities of each of the large metropolitan agglomerations. It consists of a systematic description of the various bodies and administrative levels that make up the 35 large agglomerations defined in this study, in accordance with the variables and categories described in this section, with the aim of objectivising the comparative analysis of the forms of government.

URBAN PERSPECTIVE

Objectives

In order to get more insight into the European metropolitan realities and with the aim of analizing the transformations in the urban network, the report *Grans Aglomeracions Metropolitanes Europees (European Large Urban Agglomerations)*[1], published in 2002, has been updated. It contained the results of a study carried out with the aim of providing a methodology allowing the delimitation of large urban concentrations in Europe according to a homogeneous and comparable set of criteria. In this revision the methodology used in the previous edition has been kept: the variable of population density, the geographical contiguity between the various municipalities and the criteria of urban intensity.

In 2002 the study employed statistical data for the years 1996-1998 and the map databases of the 15 countries that comprised the European Union at that time. With the enlargement of the European Union it was considered necessary to extend the study to the whole of Community territory, including all the urban agglomerations of the countries that made up the European Union in 2006[2], and the present study on *European Metropolitan Agglomerations (EMA)* was undertaken. We have taken advantage of this new process to update all the statistical data and also to validate and simplify some of the steps of the methodology used. In this way we have obtained up-to-date results for all the metropolitan agglomerations and

furthermore we have been able to start a monitoring process of the demographic development of European metropolises from the demographic and territorial point of view. We ought to mention that some aspects in favour of the methodology used are ease of updating and the systematic and homogeneous application of the same criteria to all the cities studied. These aspects have been confirmed in this study. They allow obtaining a precise representation of the extension and boundaries of the more dense urban areas and, at the same time, emerging agglomerations not found by other studies can be identified.

The results forthcoming from this methodology have been contrasted with those of other studies of a functional nature (that employ data on commuting to define metropolitan area) or of a physical kind. The comparison of results shows that, despite the diversity of approaches, in most cases there is agreement about the dimensions and the delimitation of the European urban reality.

The European demographic context

This revision has incorporated 11 new countries[3]; this has meant extending the study by nearly 85 million inhabitants and 17,500 municipalities. More than 455 million people live in the 25 European Union countries studied, which have a total surface area of almost 4 million sq km and an average density of 117 inhabitants per sq km. One prominent feature is the great heterogeneity of the different European countries regarding the size of their population, their surface area and their administrative structure.

The population is not distributed evenly over the EU countries, and very diverse demographic realities are to be found:

– Six countries with a very large demographic weight: in first place Germany with 82 million; France, Italy and the UK with populations of around 58 million; and then Spain with 44 million and Poland with 38 million. These six countries alone account for 75 % of the population and occupy 60 % of European territory.

– Six countries with populations of around 10 million: Austria, Belgium, Czech Republic, Portugal, Sweden and Hungary. The Netherlands stands in an intermediate position at 16 million.

– Three countries with populations of around 5 million: Denmark, Slovakia and Finland.

– A group of countries with populations that are smaller but range widely, from the 4 million of Ireland and Lithuania, through