5 The Spanish way to economic deconcentration: A process of several speeds

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- Abstract: In this chapter we describe how Spanish metropolitan areas still display a strong monocentric pattern, although familiar market processes of employment deconcentration are in play, frequently assisted by public policies and initiatives. Until recently, Spanish cities have undergone mainly residential deconcentration processes. The two case studies Madrid and Valladolid show that urban planning has encouraged this market-led process through built-up area reassessment techniques. During the 1990s, two main confluent variables played major parts: (1) the huge price increases of real estate in central areas; (2) the deliberate regional political decision to spread economic activities, even those traditionally linked to the city core such as offices, retail, and even public services. The land-use policy of regional governments and the development of new transport infrastructures contribute to a gradual erosion of the existing monocentric spatial structure
- Key words: Employment deconcentration, monocentric spatial pattern, regional planning, Madrid, Valladolid

5.1 Introduction

Until recently, metropolitan areas located in Mediterranean Europe have usually been charged with unplanned deconcentration, resulting from loose management practices and low levels of enforcement of laws and regulations. However, Spanish and Italian case studies reveal a different reality. Although the familiar landscape of employment deconcentration can be observed at some suburban locations. metropolitan areas in both countries seem to have retained a strong monocentric employment distribution. In Spain's growing metropolitan areas, employment has not so far followed the marked residential deconcentration. In fact, Spanish cities are competing with cities in Poland and the Czech Republic to attract or take over industrial production sites from West European companies (Krätke, 2001). In the two Italian metropolitan areas (Rome and Chieti-Pescara) described in another chapter of this book, central cities and city centres have retained their dominance in commerce, leisure, and office employment. Are planning regulations in these countries more effective than could have been hoped for here? Are market pressures for employment deconcentration weaker than expected, because of demographic decline, or of being at an earlier phase of metropolitan development, or because

of specific values and tastes that affect business location decisions? To ascertain these issues in the Spanish case, we have analysed two case studies: Madrid and Valladolid metropolitan areas.

The profile of the process of urbanization in the last few decades in Spain differs markedly from that operating in other West European countries. The difference derives from a trend of urban concentration starting later, with a pattern in favour of the very few cities to which much of the demographic and economic flows were directed. It must be borne in mind that until the 1950s the urbanization rate was around 41 percent: that figure represents a typically rural habitat. From the 1950s onwards, a great part of the rural population has been channelled towards the major industrial cities (mostly Barcelona, Bilbao, and Madrid) giving as a consequence a yearly urban population growth rate of around 3.1 percent through the 1960s and 1970s; in both decades the urban population exceeded the rural population by 50 percent: the greatest concentration of population was in the big cities and the metropolis.

However, through the 1980s and 1990s, urban population growth decreased (Precedo, 1996), although levels remained higher than in those countries that have finished their urban transition. In fact, in Spain the increase in the more developed urban systems with an industrial background was smaller, whereas growth in the semi developed cities was more rapid. Even so, the growth of the biggest cities is still exceeding that of the overall urban and total population; the process of urban concentration is still in place.

In this context, the metropolitan areas of Madrid and Valladolid both still display a strong monocentric pattern, although familiar market processes of employment deconcentration are at play, frequently assisted by public policies and initiatives. Until recently, Spanish cities have mainly undergone residential deconcentration processes. Nevertheless, employment deconcentration is also at play, affecting the inner areas. These could become dependent on advanced tertiary activities, exclusive retail and luxury shops, and high standard housing as a result of the loss of their more traditional activities. Changes in lifestyle and high levels of motorization influence these new spatial patterns.

The two case studies – Madrid and Valladolid – show that urban planning has encouraged this process through built-up area reassessment techniques. In parallel, newly-built-up areas in peripheral states, whether developed spontaneously or through planning, have driven deconcentration, normally without taking account of the local labour market specificities. During the 1990s, two main confluent variables played major roles: (1) the huge price increases of real estate in central areas; (2) the deliberate Madrid regional political decision of spreading economic activities more widely, even those traditionally linked to the city core such as offices, retail, and public services. These include advanced producer services, business parks, universities, and cultural facilities. A gradual erosion of the existing monocentric spatial structure has been brought about by the regional government land-use policy and the development of new transport infrastructures: the regional railway, subway, ring roads and airport enlargement.

Employment opportunities in both Madrid and Valladolid are highly concentrated within the central city, especially in Valladolid where economic deconcentration processes are in their infancy. The deconcentration of employment and the resulting changes in economic land use has not led to the emergence of local employment sub-markets in the suburban rings in either Madrid or Valladolid. Consequently, the amount of commuting is increasing tremendously in a multi-directional pattern (not only inwards and outwards), even though the Madrid urban core continues to be the main commuting destination and the central city of Valladolid dominates even more.

The discussion in this chapter concentrates on how regional and urban planning has influenced economic deconcentration in the context of a market-led process focused on a services sector characterized by huge price increases of real estate in central areas, the search for an appropriate environment for employees in the context of new life styles, and the restructuring of big companies (merging processes) in the framework of globalizing European markets. We start with a brief presentation of the regulation framework and continue with the case studies' definition of boundaries. We then describe the design of the analysis, paying particular attention to some methodological issues. In section 4, we present the case studies profile. The prime focus in section 5 is the process of employment deconcentration as it applies in both case studies. Finally, our main conclusions are presented in section 6.

5.2

The regulation framework: Town and Country planning and specialized planning determining the deconcentration processes in Spain

The metropolitan legal foundations were established after the Civil War, during the 1940s and 1950s, when some urban agglomerations received *Big City* status¹. These were Madrid, Barcelona, Valencia, and Bilbao. But that is not to say that there was a clear planning scheme or a real metropolitan government. After 1956, the legal shifts of Spanish urban planning have been subject to constant review (1975, 1990, 1998), but no specific metropolitan regulation was ever approved. Only Madrid and Barcelona acquired a Metropolitan Plan, supported in the case of Madrid by a Capital Status Act enacted by Parliament. In 1963, in accordance with Madrid's exceptional status, a Master Plan that included a specialized authority (COPLACO) to put it into effect was drawn up and enacted.

The arrival of democracy and the shaping of the new Autonomous Community structure forced a general discussion on the metropolitan areas and their possibilities of self-government. Paradoxically, the decentralization pattern represented by the Autonomous Communities had a negative effect on the survival of the metropolitan authorities with urban planning scope. The view was taken that these institutions were no longer appropriate in a decentralized context; a few years later, the Metropolitan Planning structure of Bilbao (1980), Valencia (1986) and Barcelona (1987) disappeared. Before it was dissolved (July 1983), the Metropolitan Authority of Madrid (COPLACO) transferred its planning responsibilities to the Madrid Autonomous Community.

The current legal framework, and specifically the 1985 Local Government Act, allows Autonomous Communities to create local institutions in their own territory embracing a set of municipalities. The three possibilities mentioned in the Act are: the region, the metropolitan area, and the municipal commonwealth. The metropolitan areas are local institutions integrated by the municipalities of big urban agglomerations. Their urban settlements maintain economic and social relations that oblige the joint planning and coordination of services, public works, and urban amenities. Responsibility for the metropolitan areas lies within the Autonomous Communities, which can create, modify and suppress them through legislation. The Local Government Act bases the creation of the metropolitan institutions on two main needs: joint planning for wide, complex territories that exceed the municipal boundaries; the management of services and works appropriate to the metropolitan scale.

The Autonomous Communities have scarcely developed the possibilities of the metropolitan areas. However, in some cases the autonomous legal framework dealing with local government refers explicitly to the metropolitan institutions. The most meaningful example is that of Catalonia with the Local Government and Municipal Act of Catalonia (8/1987), which prepares for the possibility of creating Metropolitan Authorities.

Spain has recently entered the stage in the process of urbanization that is marked by a general dispersion of the cities into their surrounding territories and the reinforcement of the metropolization processes. Once the economic crisis of the first part of the 1990s had been overcome, Spanish cities of any size entered a stage characterized by weak demographic growth and extensive spatial sprawl. The results of this situation are complex and include: the emergence of technological and business parks as tools of urban marketing for the competition between cities; the reorganization and modernization of the infrastructure (roads, railroads, harbours, airports, and so forth); and the consolidation of new central areas devoted to tertiary sectors such as shopping and leisure centres, mostly located in the metropolitan periphery.

The case of Valladolid was quite different; this and the surrounding municipalities have never been considered as a metropolitan area, nor have they been regulated through a Metropolitan Plan. Each municipality has remained as an independent body for administrative matters, including planning. Only recently (1998) has a territorial sub regional division (designated 'Valladolid and the surrounding area') been approved with the support of the Town and Country Planning Guidelines for the whole Castilla y León Region.

5.3 Definition of boundaries and description of methods used in the case studies

In Madrid, we have followed the administrative-functional boundaries. The Madrid municipality is divided into two well-defined areas: urban core, including six inner central city districts surrounded by the first highway (M-30); and the outer central city with the remaining fifteen peripheral districts of the Madrid municipality.

Outside the Madrid municipality, two rings have been defined: the inner and outer suburban rings (Figure 5.1). The inner ring's boundaries are those established when the Metropolitan Area was created in 1963 along the lines of the American Standard Metropolitan Statistical Areas. The Metropolitan Area was extended during the 1970s to incorporate a total of 26 municipalities. In the 1990s, the former new town of Tres Cantos also attained municipal status. The current 27 municipalities belonging to the inner suburban ring were governed by a specialist metropolitan authority (COPLACO) responsible for the urban and territorial planning scheme. After the establishment of autonomous status in 1983, the metropolitan ring was eliminated as an administrative entity, even though scholars and practitioners continue to refer to it as the functional territorial unit where the advanced processes of multifunctionalization operate. We assert that the economic deconcentration in this ring achieved the most outstanding results during the 1990s.

From the point of view of this research, the outer suburban ring is considered to be the familiar rural-urban fringe: urban functions (residence, manufactory, retail, leisure) coexist with rural activities, retaining some rural population. The characteristic that therefore better encapsulates the qualities of this outer suburban ring is the mixture of functions and the process of change affecting all the territorial aspects (functional, morphological, and social). The two kinds of deconcentration are proceeding at a different pace: residential deconcentration underwent a high growth rate during the 1990s; economic deconcentration fell behind, except in the southeast corridor (in the direction towards Valencia road) and in the southwest corridor (in the direction towards Toledo).

Valladolid has not yet become a true Metropolitan Area, since the main conditions for that status have not been fulfilled, including the demographic conditions (most of the surrounding municipalities do not reach 10,000 inhabitants) and the socio-economic conditions (the economic and labour flows are very low). The only aspect indicative of the metropolization process is the residential deconcentration from the central city to the municipalities nearby; people are looking for cheaper housing prices and better living and environmental conditions.

Consequently, the boundaries taken for this case study are those established for planning purposes in the Town and Country Planning Guidelines approved by the



Fig. 5.1 Madrid's metropolitan area: definition of boundaries

Regional Parliament in 1998. The areas considered are (Figure 5.2):

- Central city: Valladolid municipality.
- Inner suburban ring: twelve municipalities bordering the Valladolid municipality.
- Outer suburban ring: the other ten municipalities from the inner ring to the outer border of the planning territory defined by the guidelines mentioned above.

The two case studies analysed involve data sources for economic and employment deconcentration that differ in scope and quality. Madrid has a rich data resource through the information provided by the Statistical Institute of Madrid's Autonomous Community, but Valladolid lacks a counterpart institution and consequently access to comparable data has been difficult. In addition to the analysis



Fig. 5.2 Valladolid's urban agglomeration: definition of boundaries

of the population census, the evaluation of economic and employment deconcentration in Madrid's case has been based primarily on the analysis of the Local Workplaces Directory (1998, 1999, 2000 and 2001), the most fruitful resource for this topic. In the case of Valladolid, the lack of a comparable data source has obliged us to use the available data on employees and enterprises of the Social Security Affiliation for the period 1999–2000.

In order to operationalize the employment density analysis, we superimposed on the whole study area of the administrative and land-use layers a geometric network comprising a number of rings drawn at regular intervals from the city centre (10 km. in both case studies). Later, we split these rings into the sectors and wedges structured by the main transport highways that contribute to the distribution of economic activities over the territory in the Madrid case and a compass rose composition for Valladolid. The challenge was to identify meaningful location patterns by means of a pie-ring chart. As far as mixed uses are concerned, we have tried to verify the degree to which two or even three economic uses coexist within the same ring/wedge. The level of mixed use was calculated by measuring the relative employment specialization by economic branch and combining and comparing these so as to identify the dominant economic activities/employment. To arrive at a meaningful result, we applied a simple, straightforward methodology:

- An activity is considered to have significant weight in a specific activity in a spatial sector when it exceeds 16.6 percent (one sixth of 100 percent) of total activity.
- When several activities reach this weight in the same sector, it is considered to be multifunctional.
- When the percentage of the employees in a spatial sector who work in a specific activity exceeds the threshold of 33.2 percent, we conclude that the sector specializes in that activity.

5.4 Case studies profile

The Madrid Autonomous Community is located in the core of the peninsula and covers a surface of 8, 030.1 km^2 . The Community encompasses 179 municipalities, including Madrid — the capital of both the state and the Autonomous Community. Madrid's profile is that of a great metropolis, accommodating more than 5 million inhabitants (2001) within the metropolitan area, creating a boundary effect against the surrounding provinces and regions in economic and labour terms and in demographic and residential sprawl.

The Madrid municipality is the eighth largest city in Europe; it is a major financial and economic centre, well equipped with advanced services. Madrid has a vibrant cultural, leisure, and nightlife scene. In 1995, 53 percent of the Region's theatres and cinemas, 69 percent of libraries, and 73 percent of the museums and cultural centres were located in Madrid. Many international congresses, conferences, and exhibitions are held there.

During the last decade, new organizational forms within the productive system have forced a number of changes that can be summed up as follows:

- Peripheral expansion: The built-up area keeps expanding; this process is associated with the increasing motorization rate.
- Displacement of central activities (industry, commerce, offices etc) towards peripheral locations, generating an important flow of mobility for work, leisure, and tourism, which leads to an increase of employment.

The decentralization processes that have been going on since the 1970s are varied in nature although related to a great extent to the residential market. The considerable increases in housing prices inside the central city have resulted in the following: the appearance of satellite towns around the city and its metropolitan periphery; the conversion of former secondary residences, mostly located in the north and northwest side of Madrid municipality close to the Sierra of Guadarrama; the consolidation of former low-density urbanizations scattered throughout the territory; and, importantly in relation to our project, the attraction of economic activities and therefore of employment resulting from the move from central to more peripheral locations or to in situ-growth.

Nowadays, there is a tendency for activities to spread into the metropolitan periphery (second and third ring) at distances between 20 and 30 km from the central city. This tendency applies particularly to advanced services, financing, marketing, legal assistance, and so forth, even though considerable expansion of these activities towards certain peripheral districts has been observed since the mid 1990s. The commercial sector is one of the most outstanding in the economy of Madrid, especially the new commercial and leisure complexes (hypermarkets, commercial and leisure parks) that have generated new consumption spaces around the main communication routes.

Bearing in mind this economic and functional background, Madrid can be considered the most suitable laboratory for the study of such processes that go beyond the purely administrative boundaries. These processes can be seen in the neighbouring provinces of Guadalajara, Toledo, and Segovia (Angelet Cladellas, 2000; Celada Crespo and Méndez, 1994; Galve Martín, 1992). For the purposes of this project, we analysed 66 municipalities in total.

Valladolid, located in the northern sector of the Spanish *Meseta*, has been the capital of the Castilla y León region since 1983. The city is the tenth in terms of population size; it is classified within the Spanish urban system as a regional metropolis. During the last few years, Valladolid has become consolidated as an important urban centre within its region, thanks to its excellent geographical position, its urban hierarchy, and its industrial and economic services background. The current phenomenon of urban sprawl is easy to identify. Valladolid has spread over the territory, even though the city itself has been predominantly residential following the search for new residential lifestyles (de las Rivas, 1998: 219–221). Within the framework of this project we have analysed the 23 municipalities included in the "Town and Country Planning Guidelines of Valladolid and Surroundings" (Alonso, 1993).

5.5 Employment deconcentration

5.5.1 Madrid's employment deconcentration

Unlike Valladolid, Madrid has developed since the late 1980s through uncontrolled growth, a speculative process in which the management of public administration has failed to keep up with the physical and economic growth. In spite of the fact that during the last 15 years Madrid has undergone substantial economic growth, non-residential deconcentration processes follow a widely-spread spatial pattern. Some differences can be observed when considering the three main sectors: industry, new commercial developments, and offices.

With respect to the industrial sector, most authors agree that industrial firms started to disappear from Madrid's central city ten years ago as a result of technological innovations, lack of adequate premises, environmental requirements (migration of graphic arts, reprography, car repair garages, and so forth to the first ring), and the pressures of highly competitive residential land uses (Pardo, 2004).

The decline of industrial employment has run parallel to the employment growth within the tertiary sector; the closing and migration of old industrial premises is closely connected with land-use re-classification projects. The preferred location destinies have tended to be the southern metropolitan municipalities and the Henares' corridor within the first and second suburban rings (Celada Crespo, 1998; Celada Crespo, 1999; López de Lucio, 1999; Méndez, 1997). The underlying reasons for this trend seem to be lower land prices and the targeting of the southern metropolitan area as Urgent Re-industrializing Zones. Some deconcentration processes have crossed the border of the region to profit from EU and regional subsidies. The array of activities within the new industrial developments can hardly be called truly industrial processes; we find storage premises, logistic areas, car concessionaires, furniture showrooms, and so forth. Some firms search out strategic locations; logistic enterprises accumulate round an airport, for example. From the geographical point of view, experts have failed to discover why some municipalities are more appealing than others when their background conditions are similar.

Turning to new commercial/leisure complexes, deconcentration trends have run parallel to the extensive communication infrastructure layout (Méndez & Ondátegui, 1999). Here, when considering the reasons underlying the locations of new shopping/leisure malls, authors' opinions divide according to two contradictory theories. Do these facilities follow residential developments or do they deconcentrate, seeking high-accessibility locations in a context of improved transportation across long distances and a growing preference for suburban and rural living? Within Madrid central city, processes such as these have led to the disappearance of traditional little shops in favour of big supermarkets and discount chains and a greater specialization of commerce. Tertiary activities, particularly offices, display selective location preferences in the context of significant geographic movements of people and jobs. Besides the CBD, which accommodates prime headquarters, most firms move to the north highway, the northwest corridor, and two business parks in the northeast (Alcobendas and San Sebastián de los Reyes) and the Juan Carlos I's Fairground park close to the airport city complex (Carrera Sánchez, 1995; Méndez & Ondátegui, 1999). The office market in the periphery, which has been booming during the last five years, has forced prices down and led to the displacement of offices to the first ring.

The Spanish companies that have featured most actively in the real-estate disinvestment belong to the banking and energetic sector and, to a lesser degree, to insurance services and the pharmaceuticals sector. All have benefited from the current buying frenzy on the Spanish office market, especially in the city of Madrid. The massive sale of real estate in the current decade has had a clear motivation: the capital appreciation associated with property. The increase in property prices has allowed companies to accumulate capital; although the buildings are out of date, the big companies possess the best and most central properties in the cities in which they are located, a fact that reflects their financial power. The four enterprises that disposed of most real estate between 2000 and 2004 -BBVA, SCH, Telefonica and Endesa - obtained more than one billion euro in capital appreciation. These figures prove the good yields of the real-estate business in the last few years, yields which the stock markets have not matched. Considering only the 20 most active companies in the displacement of their headquarters and other offices, the economic volume that they have handled exceeds 4,500 million euro. But at the moment of confronting their real-estate strategy, the opportunities left open to these companies have been diminished to two. The first option is to regroup the staff distributed in different locations in a unique new construction, provided with the most modern facilities and placed in the periphery of the city, in property that is either owned or rented (Photo 5.1). The second option is to continue to use the same office block, but sell the property and lease it back from the new owner; the office block can be in the downtown area or in the periphery.

In general terms, all researchers agree about the poor level of planning coordination across and within sectors and at different government levels, except for the public transport policies within the Madrid region (Valenzuela, 1994). The different policies have been developed in watertight compartments. Regional and local government authorities usually differ in their strategy, the former trying to reach territorial balance, the latter to expand. Only shopping malls, universities, and hospitals seem to have coordinated their strategies with transport infrastructures.

Comparing population and employment growth in the late 1990s, the dissimilarity of the trends in both dimensions is clear. The Outer Suburban Ring leads the population growth in the functional metropolitan area (Table 5.1 and Figure 5.3) while the central city maintains a remarkable level of employment growth even though top place belongs to the Inner Suburban Ring.



Photo 5.1 Santander Holding Bank city's aerial photography

The correlation between population growth and local employment reinforces the idea of a more segregated housing location pattern in contrast with a dispersed local employment pattern. In the case of Madrid, the highest population increases appear in the outer ring, mainly in the west/northwest, south, and northeast, while employment spreads out following a more gradual profile and favouring the inner

Areas	1991	1996	2001	1991–2001	
					Percent
Inner Central City (*)	990,679	915,318	931,432	-59,247	-6
Outer Central City (*)	2,019,813	1,951,532	1,972,444	-47,369	-2.3
Inner Suburban Ring	1,582,077	1,709,956	1,906,360	324,283	20.5
Outer Suburban Ring	172,657	232,592	325,592	152,935	88.6
Total	4,765,226	4,809,398	5,135,828	370,602	7.8

Table 5.1 Madrid's population breakdown by functional areas, 1991–2001

Source: Statistical National Institute and Madrid Autonomous Statistical Institute. (*) 2001 cell contains data for the year 2000.



Source: National Institute of Estatistical

Fig. 5.3 Madrid - population growth, 1991-2001

suburban ring. There, not only companies, but also public and private institutions (universities, hospitals, and so forth) have settled during the last decade. The number of companies settled in some municipalities within the inner suburban ring grew by more than 200 percent during the decade (Villanueva del Pardillo 704.8 percent; Las Rozas de Madrid 309.6 percent; Rivas-Vaciamadrid, 258.9 percent; Villanueva de la Cañada, 231.7 percent). A complementary correlation between the location of local employment and residents in work in the Madrid metropolitan area also confirms this hypothesis. People look for high-quality residential areas far from the metropolitan core; rapid job deconcentration, particularly from the city to the inner ring, still fails to catch up with the remarkable suburbanization of population to the outer ring. So, while the dependence on the employment of residents in the inner rings is decreasing, those living in the outer municipalities contribute to the commuting problems.

In the Madrid Metropolitan Area, both the core and the outer central city have registered a decrease of population, the highest in the whole metropolitan area. In the inner-outer central city, some districts lost more than 10 percent of their population in 10 years; in fact, except for the east/southeast of the municipality, the whole built-up area has undergone a density decrease. The Madrid inner ring has had a general increase of population (11.5 percent in the last 5 years), led mainly

by the west side of the ring. Growth in the outer suburban ring has been even faster (40 percent in the last 5 years) as a result of the urban sprawl processes based on a low-density typology of detached and semi-detached housing developments.

The urban deconcentration in Madrid remains mostly residential and consequently the Metropolitan Area shows an unbalanced employment/population relationship. The only areas with a clear labour surplus are the city's urban core together with some of the outer ring municipalities. Those districts with a balanced relationship are situated mainly in the Outer Suburban Ring. The employment evolution between 1990 and 2001 in the Madrid functional area has undergone a deconcentration process favouring the municipalities located on the west side and some scattered municipalities in the northeast and southeast (Figure 5.4). The analysis of deconcentration trends on a ring scale point to a similar process for employment growth, although the outer ring has played a more active part during the last decade. In contrast, the employment evolution in the central city stagnated during the same period.

Nevertheless, in 2001, the Madrid municipality still accounted for 66.5 percent of the total employment; in second place was the inner ring (27.8 percent). With



Source: Shops Census 1990 & Local Workplaces Directory 1998 and 2001

Fig. 5.4 Madrid - employment evolution, 1990-2001

Spatial unit Year		Total employment		Retailing/consumer services		Manufacturing/ construction		Producer services	
		Absolute	Share in percent	Absolute	Share in percent	Absolute	Share in percent	Absolute	Share in percent
CBD/centre	1990	669,014	47.3	404,521	48.6	83,483	26.6	180,853	67.7
of central city	2001	690,978	41.1	323,441	41.7	99,748	24.9	266,570	58.3
Rest central	1990	399,999	28.3	244,683	29.4	102,098	32.5	53,218	19.9
city	2001	427,132	25.4	197,004	25.4	109,860	27.4	119,937	24.0
Inner	1990	286,503	20.3	157,803	19.0	99,125	31.5	29,296	11.0
suburban ring	2001	467,694	27.8	217,492	28.0	147,067	36.6	102,872	20.6
Outer	1990	58,762	4.2	25,434	3.1	29,501	9.4	3,713	1.4
suburban ring	2001	94,401	5.6	38,440	5.0	44,692	11.1	11,108	2.2
Total	1990	1,414,278	100	832,441	100	314,207	100	267.080	100
urbanized area	2001	1,680,205	100	776,377	100	401,367	100	500,487	100

Table 5.2 Madrid's employment breakdown by economic sectors, 1990–2001

Source: Madrid Autonomous Statistical Institute.

only 5.6 percent of the employment, the outer ring was less relevant in employment terms (Table 5.2). In contrast, the employment growth has favoured the inner suburban ring, where the growth of employees in the period 1990–2001 reached 63.2 percent. The growth was concentrated in a few municipalities (Villanueva del Pardillo, Villalba and Camarna).

Of course, Madrid offers a wide range of employment opportunities. The activity rates during the 1990s show an expanding economy; Madrid and all the municipalities included in the inner ring have increased their activity rates by at least five points; the increase has been ten points or more in some cases more distant from Madrid. The increase in activity rates during the period 1991–2001 in the outer ring is even more striking, with gains of over 15 points in all the municipalities and exceeding 30 points in some cases. Population growth in this ring during the last decade has been relatively high, even exceeding 100 percent; most of the new residents are young professional couples living in owner-occupied houses.

When comparing the functional zones described, only the Madrid Urban Core has an employment surplus; the values in the outer Madrid districts are below average, while the local employment-local working population relationships in the suburban rings are balanced (Figure 5.5). At the municipal level, in the Madrid Metropolitan Area the municipalities with a labour surplus are located in a northeast-southwest arch belonging to the east inner ring and south outer ring sectors. Other than in four of the Madrid districts, an exceptional surplus index (more than 2) is only found in some municipalities of the outer ring bordering the industrial "Henares' Corridor".

In general terms, the employment density in the Madrid metropolitan area displays a clear spatial pattern that follows a decreasing clockwise sequence (Figure 5.6). The northern and northeast wedges show the highest employment densities; the former is linked to Madrid's CBD. A few inner and outer suburban



Source: Local Workplaces Directory 2001. Own elaboration

Fig. 5.5 Madrid - local employees/local working population, 2001

municipalities have business and science parks, together with universities and administration and public services. In this case, the employment distance decay model appears to apply. The latter fits the well-known Henares' industrial axis.

The two southeast wedges have also reached high employment densities; both accommodate working-class districts and a number of industrial and logistic municipalities along the Valencia and Andalusia' main transport axes. The next three wedges follow a decreasing pattern of dominant residential specialization combined with public and private services to the local and metropolitan population. Only the more distant municipalities in the south-west wedge contradict the distance decay model due to the settlement of some industrial and service companies currently together with the opening of a big leisure and commercial centre (Xanadú complex in Arroyomolinos).

The retail employment density replicates the decreasing clockwise sequence (Figure 5.6). The north and northeast wedges have the highest values through the presence of Madrid's districts and large retail and wholesale areas along the Henares' axis. Outside the Madrid municipality, the highest values per sector appear in the north and southeast, the former including big shopping malls in the municipalities of Alcobendas and San Sebastián de los Reyes, and the latter in that of Rivas-Vaciamadrid.



Fig. 5.6 Madrid metropolitan area - employment density, 1998

The northern wedge has the highest relative figures for manufacturing employment density, followed by the northeast and south (Figure 5.6). The figures for the north and northeast are both boosted by the weight of Madrid's districts. In fact, all the wedges except the northwest display medium-to-high manufacturing employment densities. However, an analysis by sector reveals the important role of the outskirt municipalities in the southeast (Arganda, Campo Real) and southwest (Arroyomolinos, Cubas de la Sagra, Griñón, Humanes de Madrid, Moraleja de Enmedio). The results in both these cases confirm the hypothesis that no productive space may be identified in the region as an industrial district in its full sense, although a series of territorial industrial groupings with the character of local productive systems has appeared. The most consolidated areas in this respect are centred around Fuenlabrada-Humanes de Madrid and Arganda del Rey; these areas could eventually become an "emerging industrial district", although the relatively recent development has not yet led to a bond between the productive and social aspects (creation of an industrial atmosphere, generation of innovation, consolidation of local institutions, and so forth) that characterises a district.

The spatial pattern of office employment density replicates the location trends of advanced tertiary services within the Madrid metropolitan area (Figure 5.6). The highest density values are found in the northern and northeast wedges; the former faithfully follows the distance decay model. The poorest densities appear on the southwest side of the metropolis. In general terms, the whole of the south has undergone a relative deprivation compared with the north. The two main transport highways to the Basque Country in the north and Galicia in the northwest have become key infrastructures in developing business and science parks. Here, banking, telecommunication and building companies have recently settled. This deconcentration model also correlates with the land prices spatial pattern: in other words, wherever new office developments appear prosperous low-density residential areas also contribute to the urban sprawl. Blue collar activities in the manufacturing sector are excluded.

The level of mixed use has been calculated by measuring, combining, and comparing the employment density by economic sector. We have avoided comparison with only residential uses since our focus is on economic rather than residential deconcentration. The methodology applied includes the selection of two different quantitative thresholds: the first (16.6 percent) defines a minimum economic presence by sector and the second (33.2 percent) identifies the dominance of an economic category.

The results can be seen in Figure 5.7. A preliminary breakdown by economic category highlights the strong concentration and segregated spatial pattern of manufacturing and, to a lesser extent, retail, while transport and public services are scattered throughout the whole metropolitan region. The spatial pattern confirms the statements previously made: industrial employment is mainly located in the southeast and southwest, but always in the sectors furthest from the metropolitan centre. On the other hand, retail employment is located mainly in the most distant



Source: Own elaboration

Fig. 5.7 Madrid - economic functions mixed uses, 2002

southern locations. The concentration rates for office employment are lower, but with a clear spatial pattern: the northern wedge has the strongest impact in Madrid's northern districts. Comparative figures for leisure employment are greatest in the northwest wedge and southwest Madrid's districts.

In summary, the assessment of economic mixed use confirms the hypothesis of a distant ring of manufacturing activities; these are more strongly affected by deconcentration processes, which tend to locate in the southeast and southwest as well as in the north-northeast. In general terms, this location pattern does not contradict the Madrid metropolitan area's traditional functional structure. On the contrary, the pattern is reinforced by the dispersal of the manufacturing activities. Deconcentrated retail activities have also moved to the south, while offices and leisure facilities are at the threshold of deconcentration processes, with the former moving to the prosperous north-northwest.

The highly concentrated and segregated spatial pattern of manufacturing and a lower level retail is worthy of note; transport and public services are scattered throughout the metropolitan region; concentration rates in office employment are not as high, but have a clear spatial preferences for the northern wedge. The bigger values for leisure jobs are concentrated in the northwest wedge.

5.5.2 Valladolid's employment deconcentration

The Valladolid municipality accounts for 86.4 percent of the total employment. This share represents a leading position in the labour market; in second place comes the inner ring (11.1 percent). The outer ring, with only 2.5 percent of the employment, is not relevant in employment terms (Table 5.3). In contrast, employment growth in the inner suburban ring rose by 29.4 percent in the period 1999-2001, with the growth concentrated in a few municipalities (Arroyo de la Encomienda, Boecillo and La Cistérniga).

The 2001 activity rates can be seen to be much lower in the Valladolid case (53.3) than in the inner ring municipality, largely because these have become dormitory towns (Arroyo de la Encomienda, 68.3). In contrast, activity rates in the outer ring municipalities are lower, because of their semi rural profile.

Valladolid, the capital of a less-well-developed inland region, is a more planned city than Madrid; public involvement in its growth has traditionally been substantial. Since the 1950s, Valladolid has been linked to car industries (Renault, Iveco, Michelin). Factories (mainly those with obsolete facilities) and logistic and distribution premises (Centrolid) are now leaving for cheaper industrial developments within the metropolitan area. Most of the economic activities are still located in the central city (approximately 90 percent), including a sector of prestigious office headquarters and Boecillo's Technological Park. This has been a successful model of "concentrated deconcentration" developed by regional administration; it has been devoted to the settlement of information and communication technology firms (Vodafone, Telefonica, for example).

Spatial unit	Year	Total employment		Retailing/consumer services		Manufacturing/ construction		Producer services	
		Absolute	Share in percent	Absolute	Share in percent	Absolute	Share in percent	Absolute	Share in percent
CBD/centre of	1999	119,694	88.9	58,335	91.5	36,361	86.3	23,801	89.2
central city +	2002	130,943	86.4	65.084	89.3	36,436	83.0	28,249	86.6
Rest central city		,				,		- / -	
Inner suburban	1999	11,847	8.8	4,218	6.6	4,599	10.9	2,599	9.7
ring	2002	16,876	11.1	6,395	8.8	6,020	13.7	4,003	12.3
Outer suburban	1999	3,030	2.3	1,202	1.9	1,174	2.8	277	1.0
ring	2002	3,764	2.5	1,439	2.0	1,443	3.3	380	1.2
Total urbanized	1999	134,571	100	63,755	100	42,134	100	26,677	100
area	2002	151,583	100	72,918	100	43,899	100	32,632	100

 Table 5.3 Valladolid's employment breakdown by economic sectors, 1999–2002

Source: Ministry of Employment and Social Affairs.

The municipality of Valladolid views the deconcentration of non-residential activities towards the metropolitan area as a threat and has classified new industrial land within the last Structural Plan to reduce economic deconcentration. Companies have moved not only to metropolitan municipalities, but also to other provinces. Large shopping/leisure malls have also been built within the metropolitan area, forcing the closure of traditional small shops. Schools and education facilities have also deconcentrated in line with the residential deconcentration.

The new town and country planning guidelines for the territory surrounding Valladolid are an attempt to resolve the lack of coordination between the Valladolid central city and the metropolitan municipalities. This planning tool has, however, encountered opposition from the municipalities, who consider that it violates municipal autonomy. Valladolid lacks a metropolitan authority to coordinate the territorial planning of the different municipalities. Consequently, new informal and illegal developments have been allowed in the surrounding municipalities, which depend on Valladolid central city to guarantee basic supplies (water, electricity, sewerage, waste disposal).

The factors underlying non-residential deconcentration processes are mainly economic, including urban land prices and land availability and current industrial zone congestion within the central city. Good locations and accessibility plus public subsidies (the Technological Park of Boecillo) have contributed to the success of some deconcentration processes (concentrated deconcentration model) towards the inner suburban ring.

Comparing population and employment growth from the late 1990s, some kind of similarity can be found at the metropolitan level (Figure 5.8). Population growth is most concentrated in the Inner Suburban Ring, which is followed by the Outer Ring and then the Central City (Table 5.4). In contrast, the highest employment growths have favoured both rings, mainly in the southern sector. Valladolid's central city has at best stagnated during the last decade, while the inner suburban



Source: National Institute of Statistical. Ministry of Employment and Social Affairs

Fig. 5.8 Valladolid – Population growth (1991–2001) and local employment growth (1999–2001)

ring has taken over the highest population growth (44.2 percent in the last 5 years). The outer suburban ring has recently experienced a population rise (13.4 percent in the last 5 years), a figure reflecting dynamics far below those of the inner ring.

The spatial pattern for Valladolid differs markedly from that of Madrid. Valladolid is an urban agglomeration in which the recent suburbanization of population has favoured the inner suburban ring, while the bypass and road network has supported the deconcentration of jobs and economic activities far away from the central city. Poor historical data series (1998–2002), hardly lead us to expect some kind of employment deconcentration in favour of the first suburban ring, since

Areas	1991	1996	2001	1991–2001	
					Percent
Central City	330,700	319,805	316,580	-14,120	-4,3
Inner Suburban Ring	24,122	30,588	44,123	20,001	82,9
Outer Suburban Ring	13,399	15,753	17,868	4,469	33,4
Total	368,221	366,146	378,571	10,350	2,8

Table 5.4 Valladolid's population by functional areas, 2001

Source: Statistical National Institute.

most of the outer municipalities are really rural-urban areas. As the percentages of new employment contracts for the period 1998–2002 show, the rates for the Valladolid municipality lag behind the increases in the other rings. The increase in employment contracts in Valladolid was only 15 percent compared with 55 percent in the inner suburban ring and 57 percent in the outer suburban ring, even though the contracts signed during this period in Valladolid municipality amount to 88.4 percent against 9.6 percent in the inner ring and 2 percent in the outer ring.

A slightly more favourable image of the employment deconcentration process can be obtained from information on workers affiliated to Social Security for the period 1999–2002. The Valladolid municipality holds a clear first position with 66.1 percent of the affiliation gains in absolute numbers (11,269 affiliated increment); the figures for the inner and outer rings are 29.5 percent and 5,036 affiliation gains and 4 percent and 746 gains respectively.

In contrast, the increment percentages of the three sectors in the same period were 9.41 percent in Valladolid, 29.8 percent in the inner ring, and 19.75 percent in the outer ring. A preliminary conclusion can therefore be drawn: The economic model in Valladolid is still highly concentrated and the process of deconcentration is only just starting with selective results in certain municipalities.

Our main findings can be summarized dealing with three economic sectors: manufacturing, retail and offices. Valladolid preserves a prominent position in industrial employment with 87.4 percent of the total, since most of the industrial land on offer is still in the central city, where the biggest industrial estates are located (Avance del Plan Industrial, 2002). On other hand, employment gains also take place in the inner periphery in those municipalities with urbanized land available (La Cistérniga, Santovenia) or even a technological park (Boecillo). These areas are all located in the eastern arch of the Valladolid agglomeration (Figure 5.9). Together, they account for 90 percent of the industrial employment increase in the whole ring. That is concentrated deconcentration. But even the poor industrial employment gain in the outer ring seems to be linked to the proximity of those municipalities in the eastern arch but with other patterns of physical location (road strips, scattered). The three municipalities with gains of over 25 employment places are located in the northeast and southwest sectors of the outer ring.

Assuming that the best data source for the whole period (1990–2000) refers to the generation of industrial employment, we can state that deconcentration processes are still at an early stage. Valladolid city has acquired more than 69 percent of new industrial employment during the last decade. Consequently, the employment deconcentration process in this case is at an early stage, and the inner suburban ring has hardly benefited, with only 22 percent of the total. As far as the spatial pattern is concerned, the industrial deconcentration is mostly located in the eastern arch of the metropolitan area. That it dates from the second half of the 1990s is evidence of how recent is the generation of the new employment in the southern area of the inner and outer ring. Similar early deconcentration processes can be identified in most of the economic sectors; even the outer ring can lead the



Source: National Institute of Statistical. Ministry of Employment and Social Affairs

Fig. 5.9 Valladolid - local employees/local working population, 2001

percentage increase in employment, bearing in mind that its departure point was very low.

Some preliminary findings dealing with the deconcentration spatial pattern can be put forward, while bearing in mind that, in our approach, employment is related to urban land (which is not equivalent to the built-up area) and that data is only available for one year (1998). The results of the density approach related to urban land surface show that the central city density is over four times that of the rings (28.8). By sectors, the highest density values are found for the southern part of the inner ring, where some industrial estates are located (La Cistérniga and Boecillo) (Figure 5.10).

As expected, the highest retail densities are in the central city, where 88.7 percent of the retail employees and 63.1 percent of the urban surface are concentrated. Of the ring sectors, only one has a medium-high density value: the outer sector of the north-western ring, where the airport and new retail structures are located (Figure 5.10). The relatively high densities result from the reduced urban land surface rather than the number of employees. A third density level with medium-low densities can be observed in the eastern half of both rings. At wedge level, a clockwise density decline occurs, ranging from the highest values in the north-east to the lowest in the north-western corner.



Fig. 5.10 Valladolid – employment density, 1998

In manufacturing, the highest density values are once again in the central city; translated into relative figures, the shares are 88.7 percent of the employment and 63.1 percent of the urban surface. With five fewer density points, three inner ring sectors belong to the medium-high interval. The largest peripheral estates are located in these sectors (Santovenia, La Cistérniga, Boecillo). The lower density values can be seen in the outer and western sectors (Figure 5.10). In terms of wedges, the highest density is also located in the north-eastern corner of the diagram, where several dynamic municipalities other than Valladolid are located (Santovenia, Cigales, for example). The density values of the next clockwise sectors are slightly lower (5 and 4.7), but still much higher than the next (north-western) sector, again at the bottom of the economic activity deconcentration.

The primary position of the central city in the office sector is shown by both absolute and relative values in employees (17,035) and in urban surface, even if the density in lower than in the others considered (5.2). With respect to offices, only the south-western inner ring sector has any relevance; there the Boecillo Technological Park is located, with 1,538 employees and a density of 2.4. Only the inner eastern sector reaches a density rate of 1; there, the only true dormitory town is located (Laguna de Duero). No other sector in the compass rose diagram exceeds the density rate of 1 (Figure 5.10). In terms of wedges, surprisingly similar densities are shown in three sectors with values between 3 and 4. As in other activity sectors, the lowest value is

located in the north-western wedge (0.8), a figure that stresses the poor employment opportunities.

Valladolid hardly has a CBD, but there is an area of high economic concentration associated with ring one. Its only connections with what should be the CBD are the roads leaving the Central City; with the only high-density values along them, mostly in industrial employment. The mononuclearity of Valladolid is even more striking than in Madrid; no suburban centre has become a truly multifunctional city; even the larger centres are dormitory towns or low-density settlements.

The last investigation of economic deconcentration in the Valladolid case was to assess the multifunctional degree at sector level for the year 2002 using employment information for the six economic sectors chosen. As shown in Figure 5.11, the mixture of uses covers a wide range of combinations in both peripheral rings. The chart is divided into twelve radial-concentric sectors, half with no clear specialization (mostly the inner ring); the only exceptions are the manufacturing specialization of the north-eastern ring and the leisure specialization of the outer western arch. The pie chart suggests the main conclusion: the multifunctionallity reaches the maximum in Valladolid municipality; concerning the inner suburban ring the economic activity mixture affects to some activities depending on their situations. Finally, the situation in the outer suburban ring is similar, but the proximity can affect more and scattered functions even if the decentralization process is less developed.

Recently, a new strategy of municipal competitiveness has appeared among metropolitan municipalities. Bearing in mind that urban planning is under the



Fig. 5.11 Valladolid. Economic Functions Mixed Uses (2002)

governance of regional and local administration (public administration controls land-use classification and the location or facilities), the statement that the private sector provides the demand and the public sector the supply seems to approximate to reality. Real-estate developers, shopping/leisure malls and hotel companies are moving out of the Valladolid municipality while the central city is struggling to retain these activities. Private agents are directed by economic conjuncture and profitability criteria (land prices, communications and accessibility, workforce), so they deconcentrate commercial and leisure activities; also the closeness to other related companies (within the car sector), and a pleasant environmental location play a part.

Reactions about the extent to which an attempt has been made to coordinate policies both across and within sectors, and at different government levels, are discouraging. Some scholars stress that there is a strategy to deconcentrate population, but not services. Valladolid lacks a relation between territorial and sectoral policies. Coordination, collaboration, and cooperation are empty concepts; only water and waste disposal rate coordination efforts. Small municipalities within the metropolitan area, all of which want to grow, spoil valuable landscapes or develop without previously solving the problem of water supply. Sectoral policies determine different trends, while transport policies favour deconcentration processes. Environmental policies seek to limit deconcentration. However, environmental policies sometimes contribute to the ejection of pollutant industries. Valladolid must now adapt 166 factories to meet the new European Directive and the new Environmental Protection Act. Some of the factories will be able to adapt, but some will have to move. In the case of Valladolid, in future high speed trains will have big impacts and consequences. The building of underground urban infrastructures will also favour new economic and residential development. Ambitious infrastructure policies could be said to favour deconcentration, even indirectly. New residential developments force the development of new facilities and services.

However, other scholars (López de Lucio, 1999) surmise that economic activity lacks the circumstances and incentives to deconcentrate, so the lack of reaction of public administration can be considered a negative policy. Spanish municipalities lack the economic resources to play a part within these policies. Only regional and central government authorities are able to build new economic developments. When local administrations took on territorial planning, they did not receive a proportional budget. So, in order to attract economic activities, they offer low taxes and cheap services.

5.6 Conclusions

The processes of the metropolitan decentralization of both housing and employment and their effect on traffic congestion as well as other negative environmental impacts have provoked debate in recent literature. According to some authors, the duration and distance of commuting increase in the course of time and decrease when there is a territorial balance in the distribution of housing and workplaces. Unfortunately, the mononuclear profile of both Madrid and Valladolid and the centripetal traffic network subject to increasing car ownership among employees have favoured congestion and higher pollution (Naredo, 1999).

We have described recent trends in the decentralization of employment and housing in the metropolitan areas of Madrid and Valladolid and put forward some preliminary conclusions concerning their relationship with the quality of life. The results of our analysis show a clear tendency of decentralization towards the respective suburban areas, although jobs located outside the central cities area are still far below the percentages shown in other towns and cities. This decentralization generates a high increase in the demand for inter-municipality mobility. In both cases, the process described shows the lack of efficient planning at the metropolitan or regional level to find a better adjustment in the territorial assignation of employment and housing by subordinating local planning to these supra-municipal objectives. Local planning has mainly pursued housing-related aims, while the location of companies appears to obey different criteria. These are some of the factors that help distort the local markets for land, housing, and transport, and help explain the peculiarity of the process described over the growing imbalance in the territorial designation of employment and housing.

During the period considered (1990-2004), some fundamental changes have occurred in the national governance structure affecting the legal set-up of land use and planning. In 1990, following the 1956 and 1975 Acts, parliament approved the third Planning Act as a planning regulation scheme for the whole country. However, during the 1980s Spain had become one of the most politically-decentralized countries in Europe; seventeen regional governments were fully competent to deal with town and country planning regulations. Consequently, some regional governments appealed to the Constitutional Court against the 1990 Planning Act. Judgement in their favour was given in 1997. Two-thirds of national legislation has been declared unconstitutional. Since that time, the opportunities for the central government authorities to regulate urban development and curb urban sprawl have reduced their scope to those aspects of planning dealing with economic dimension of land use; all other aspects have been left in the hands of regional governments. Considering the impact of the law on economic deconcentration processes, it must be emphasized that one of the core legal principles is that all land is considered developable unless it is subject to some kind of protection (ecological or agricultural values). This new status opens up opportunities to future widening of the urban built-up area, mostly in suburban areas, provided that both public and private actors are allowed to develop land. In any case, the municipalities are responsible for adapting their urban planning scheme to the legal framework created by the regional and national powers.

Until now, the deconcentration processes in both Madrid and Valladolid have been mainly residential and only partly economic. Both cities have kept the highest concentration of employment opportunities in the central city, especially in the Valladolid case, where economic deconcentration processes are at an early stage. The deconcentration of employment and the resulting changes in economic land use has not led to the emergence of local employment sub-markets in the suburban rings in either Madrid or Valladolid. Consequently, there has been a tremendous increase in commuting in a multidirectional sense, even though the Madrid urban core continues to be the main labour-force-flow destination; the labour leadership of Valladolid central city is even stronger.

In the Madrid case (5,133,401 inhabitants in 2001), public administration is responsible for economic deconcentration through urban planning; regional administration gives final approval to all the municipal structural plans. But it is the private sector that leads the process. Indisputably, economic agents are the leaders of deconcentration processes. All the companies look for profitability and the improvement of communications. Every economic agent tries to maximize the benefits, even in the case of private-public negotiation. Small enterprises (<5 employees) are in the habit of staying in the central city, while medium-size companies (5–20 employees) move to grow, and big enterprises deconcentrate because of economic profitability (low salaries, land prices gap, innovative technologies, and so forth). Industrial factories benefit from deconcentration; they leave obsolete locations and enter new premises while gaining from the land value gap. Land speculation is thought to be one of the principal reasons behind moving out.

Up to now, in the Valladolid case, employment deconcentration is just beginning, spreading economic activities almost exclusively towards the inner ring. Even so, last year's information on new employment contracts seems to point to a change of tendency towards a more balanced relationship among the three areas; anyway deep differences in municipal activity deconcentration have to be highlighted. Industrial companies look for locations with low land prices and good accessibility. If an enterprise has a lot of employees, it must look for a location close to good transport connections. Middle-sized industries deconcentrate mainly because of land scarcity in the central city. Nevertheless, some big industries in Valladolid have not deconcentrated. Small industrial enterprises have deconcentrated preferably towards Santovenia and transport companies towards La Cistérniga. On the other hand, tertiary activities remain concentrated.

Unlike Madrid, Valladolid (378,571 inhabitants in 2001) displays a much more planned urban evolution. Because of its excellent accessibility Valladolid was selected as "development centre" in the context of Franco's Regional Development Programme during the 1960s. This political decision brought important economic benefits to Valladolid in terms of industrial activities diversification. In Valladolid, both Spanish and foreign first-rank enterprises have established important industrial factories in metallurgy, automobiles, pharmaceuticals, machinery, agro-industry, and so forth. On the other hand, the Valladolid municipality has considered the deconcentration of non-residential activities towards the metropolitan area to be a threat and it has classified new industrial land within the last Structural Plan in order to avoid economic deconcentration. However, while key experts agree that the region suffers from a public-subsidy approach to the economy in order to create new jobs, except from the case of the Technological Park, it is in fact quite difficult for public investment to determine economic activities. Concerning local policies, every municipality is trying to attract investors, Valladolid central city regards metropolitan municipalities as competitors, but the scarcity of industrial and residential land at available prices has forced the sprawl of industry and residential developments.

Note

¹ After the Civil War, urban planning regulations in the period 1940–1950 promoted the annexation of small bordering municipalities by the four big Spanish cities. This was the case for the Urban Planning Act of Madrid (1944), that for Great Bilbao (1945), Great Valencia (1946), and Barcelona (1953).

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