



Working Paper

Àrea d'Economia

Joan Trullén
Vittorio Galletto

**Inclusive growth from an
urban perspective:
a challenge for the metropolis
of the 21st century**

IERMB Working Paper in Economics, n° 17.01, November 2017



IERMB Working Paper in Economics, n° 17.01, November 2017

Title: Inclusive growth from an urban perspective: a challenge
for the metropolis of the 21st century

Authors: Joan Trullén and Vittorio Galletto

© Joan Trullén and Vittorio Galletto, 2017

Published by:

Institut d'Estudis Regionals i Metropolitans de Barcelona
Barcelona Institute of Regional and Metropolitan Studies

Parc de Recerca, Mòdul A
Universitat Autònoma de Barcelona
08193 Cerdanyola del Vallès, Barcelona, Spain.

<https://iermb.uab.cat/>

Inclusive growth from an urban perspective: a challenge for the metropolis of the 21st century

Joan Trullén

Departament d'Economia Aplicada
Universitat Autònoma de Barcelona
08193 Cerdanyola del Vallès, Barcelona (Spain)
Email: joan.trullen@uab.es

Vittorio Galletto

Institut d'Estudis Regionals i Metropolitans de Barcelona
Universitat Autònoma de Barcelona
08193 Cerdanyola del Vallès, Barcelona (Spain)
Email: joan.trullen@uab.es

Abstract: Between 1985 and 2008 the metropolis of Barcelona experienced a strong growth in economic activity and employment, which was accompanied by improvements in income distribution. The nomination of Barcelona as the host city of the 1992 Olympic Games and the entrance to the European Communities in January 1986 were crucial to activate from the city of Barcelona a powerful and original economic and urban policy aimed at promoting a new model inclusive of urban growth. The recent long period of economic growth and employment growth made it possible to advance in a model of metropolitan inclusive growth, with significant improvements in the distribution of personal income. Nevertheless, the economic crisis that began in 2008 resulted in an intense job loss and a decline in general economic activity. The Gini index of disposable income in the metropolitan area of Barcelona during the period 2008-2013 worsened returning to levels close to those of 1995. The present work explores the adjustment mechanisms of the labor market in Barcelona in response to the fall in economic activity during the recession, with a special emphasis on unemployment by geographical origin (foreign non-EU nationals) and age (young people). It also identifies the central role in ending the crisis that have had external demand and, therefore, highlights manufacturing as key in the economic recovery. The transition towards a model of inclusive urban growth must be articulated with this central idea: the recovery from the crisis will be based in manufacturing and external demand. And, therefore, it should be stressed the central role of productivity growth policies designed with territorial criteria. Instead of guiding external competitiveness based on reduced labor costs, it is necessary an alternative strategy: to return to a growth model based on inclusive urban

growth based in manufacturing exports, strengthening the knowledge economy by promoting advanced services and strengthening the metropolitan infrastructure. This is the new metropolitan strategy of inclusive growth. Metropolises are an appropriate level to face the major challenges of the XXI century: economic growth, employment growth and productivity growth based on export growth. Territorial factors are critical to growing productivity. The metropolitan policies will be decisive for an inclusive growth model as the one proposed for Barcelona.

Keywords: Inclusive urban growth, metropolis, Marshallian Industrial District

JEL: R58, O18, D31

1. INTRODUCTION

Since the end of the twentieth century Western economies as a whole have been registering low productivity growth and growing inequalities in the distribution of income and wealth. In this context, the eruption of the economic crisis of 2008, with the intensification of unemployment and the financial difficulties of public administrations, sharpened these pre-existing trends. Faced with this, post-crisis economic policies are proposed to influence productivity growth in such a way that increases in income and output translate into better opportunities for everyone to participate in the fruits of economic growth. The aim is to introduce an inclusive growth strategy whilst at the same time achieving sustained productivity growth and improvements in distributional terms (OECD, 2016, p.16).

In this context, different international institutions such as UN-HABITAT (2016) and the OECD (2016) are urging governments to promote new economic policies aimed at achieving results in terms of productivity growth and that are at the same time of an inclusive nature. These economic policies include very varied macroeconomic and microeconomic strategies, ranging from education and training policies to infrastructure policies and public service provision. But the novelty in this approach is the leading role that urban content is acquiring.

The relationship between productivity and inequality has its greatest area of reference in the city. The growth of cities and metropolises reflects their economic leadership. But it is accompanied by a tendency towards increasing inequality which grows with urban size. Generally, this relationship is dominated by the achievement of productivity growth associated with the increasing size of the metropolis and also by the generation of economies of scale related to the presence of large companies (OECD, 2016).

In this paper we intend to identify the economic fundamentals of new urban inclusive growth strategies that are capable of improving productivity while at the same time influencing an improvement in the levels of inequality. It posits the possibility of obtaining increasing returns from the development of Marshallian external economies of an urban nature. And this in a context of an economy open to external competition as is the case reference studied, which is Barcelona, in the context of the European Union. The growth of inequality is not inevitable if we introduce powerful and well-targeted urban strategies. The policy to combat inequality must therefore incorporate a well-defined urban strategy. It is about building a new model of inclusive growth based on urban and metropolitan foundations.

There would be a narrow but viable path of productivity growth that is associated with the enhancement of external economies of an urban nature, and which can simultaneously achieve objectives of an inclusive nature and objectives of economic growth.¹

2. IN SEARCH OF A NEW MODEL OF INCLUSIVE URBAN GROWTH

An inclusive growth strategy for cities is defined by the simultaneous pursuit of two objectives: growth objective and equity objective. It does not accept as a theoretical framework that initially proposed by Simon Kuznets (1955) who argued the existence of an inverted U-relationship between economic growth and inequality growth. In the Kuznets model the initial stages of economic growth would be accompanied by increases in inequality, but at a certain level of development inequality would be reduced. On the contrary, this study starts from the base of the existence of a great heterogeneity in the level of inequality and of growth between the different cities or metropolis that would follow very different patterns².

In order to characterise a new urban inclusive growth model, we will first define it. Next, we will provide a theoretical framework of the relationship between economic growth and productivity growth, based on the works of Piketty and Becattini, which will allow us to identify the possibility of obtaining increasing returns associated not at the company scale but external economies of urban nature. Thirdly, we will isolate two characteristics of the inclusive growth model: that of relying on an open economy and of obtaining increasing returns on the basis of urban external economies, and that of productive systems of small and medium-sized firms capable of cooperating and competing simultaneously.

Next, we will analyse the relationship between economic growth and income distribution in the light of the studies carried out on the metropolis of

¹ This work is part of a line of research initiated in 2012 at the Institute of Regional and Metropolitan Studies of Barcelona on inclusive growth in the Metropolitan Area of Barcelona. It takes the results of the Survey of Living Conditions and Habits of the Population of Barcelona. Vid. Joan Trullén (2015, c).

² On the relationship between income inequalities and regional economic growth vid. Rayuela, V., P. Veneri and Raúl Ramos (2014): Income inequality, Urban Size and Economic Growth, OECD (2014) and Paolo Veneri and Fabrice Murin (2016). In this last work it concludes that between 2003 and 2012 OECD regions with the highest inequality in income distribution are those with higher levels of income and output, and also those with higher levels of unemployment, on average (Veneri and Murin p.25).

Barcelona and the comparative experience with the countries of the euro area in the context of the exit from the crisis.

Finally, different urban policies of inclusive growth are characterized based on productivity growth and embedded in the development of agglomeration economies related to the generation of Marshallian external economies. It concludes with a general reflection on the opportunity to define inclusive growth strategies based on urban policies, especially in the current context of crisis exit.

3. WHAT IS MEANT BY INCLUSIVE URBAN GROWTH?

Let's start with a general definition of inclusive growth. It would be that process of sustained economic growth accompanied by the creation of opportunities for all segments of the population to participate in the economy and distributing the fruits of economic growth fairly and equitably, both in monetary and non-monetary terms (OECD, 2016, p.16).

By inclusive urban growth we understand it to be that growth of an inclusive nature that is guided by urban policies. The aim is to focus on the type of economic strategy of an urban nature that implies improvements in the distribution of income and welfare for the population that lives in a given city or urban or metropolitan space as a whole.

It would be a question of influencing urban policy on economic growth by adopting a perspective that includes both cohesive objectives and growth objectives. The aim is to adopt an integrated approach to urban policies that reconciles equity objectives with efficiency objectives.

It concerns governments as well as businesses and citizens alike. In a special way, it must be ensured that improvements in living conditions affect all residents, preventing the fruit of urban strategies from adversely affecting the most unprotected citizens.

The principles for the definition of an Inclusive Growth model in cities have been included in the "New York Proposition for Inclusive Growth in Cities" (OECD, 2015): It proposes an Agenda for Inclusive Growth in Cities based on the following premises:

- An inclusive education system
- An inclusive labour market
- An inclusive housing market and environment
- Inclusive public infrastructures and services

The United Nations has also raised the need to promote urban policies based on new models of inclusive growth. Thus, according to the new urban agenda or Quito Declaration on Cities and Sustainable Human Settlements developed in Habitat III it is established as a central principle that "it is necessary to ensure the development of sustainable and inclusive urban economies" which can properly channel the benefits from planned urbanization, including "high productivity, competitiveness and innovation" (UN, 2017).

In this paper we focus on economic strategy. We adopt an approach to the issue of urban inclusive growth from a productive perspective, open to external competition and based on innovation, in line with the Habitat III proposal. In no way do we attempt to come up with a general or holistic approach to such a complex issue. A strategy such as the proposal should be complemented with other approaches in planning, institutional arrangements or improvements in the decision-making process, which are not the subject of this study (UN, 2016).

The unit of urban analysis used is the city or the metropolis. However, it is not the municipality or the administrative unit but the whole territory defined by the existence of a labour market, the city, a physical space in which a complex but integrated productive system is concentrated where different economic agents interact. We analyse the question of the relationship between economic growth and the evolution of inequality, taking Barcelona as an example, an industrial-based European metropolis that has gone from orienting its production towards the internal market to opening itself up to external competition, directing the bulk of production towards the European market.

4. THE THEORETICAL FRAMEWORK

4.1. Insufficient productivity growth in 21st century capitalism

The advanced economies in the last decades present a structural weakness: low productivity growth. Thomas Piketty's studies of capital in the twenty-first century have shown that this weak productivity growth stems from an uneven evolution of the rate of return on capital and the overall rate of growth of the economy. The high rate of return on capital would outweigh the growth of the economy which would inexorably lead the system to low rates of productivity growth (Piketty, 2013).

In addition there would be a growth of inequality derived from two fundamental factors. The first is the greater growth of capital income in the functional distribution of income, to the detriment of labour income. The second concerns a notable tendency to increase the weight within labour income of the incomes obtained by the leading executives of large companies, who set salary increases above the growth of their productivity.

The result in terms of personal income distribution is a deterioration of the labour income of all workers which has been sharpened by a technical change that has a more than proportional impact on less skilled labour incomes.

Piketty's theory emphasises the importance of large enterprises and does not contemplate the possibility of obtaining improvements in the evolution of productivity from Marshallian external economies. Piketty focuses his diagnosis of the relationship between low productivity and growth of inequality on the experience of the United States and Great Britain, and more narrowly on the economy of Japan, Germany and France.

The correction of this trend points to new fiscal policies that affect both the correction of the increasing weight of capital income and the leaders and technical staff of companies with the ability to decide on their remunerations outside the growth of productivity.

We can ask whether there is another alternative route that focuses on the growth of productivity and that places the income from labour in a more favourable situation. In the following section we will examine an alternative way that starts with the city as an area not only of study (as a unit of analysis) but as a fundamental subject for the design and implementation of public policies that consider an inclusive growth strategy.

4.2. The approach to economic development from the Marshallian industrial district theory

Since the emergence in 1979 of Giacomo Becattini's seminal article on the industrial district as a unit of analysis of industrial economy, the question has arisen of the existence of highly efficient specialised industrial production processes in cities with small and medium sized business systems. This is the theory of the Marshallian Industrial District (Becattini, 1979, 2004).

The Marshallian Industrial District constitutes an analytical tool that can propose an alternative to the model of development studied among others by Piketty. The studies of Giacomo Becattini date back to the mid-1970s and

place the production system in cities with a specialised industrial manufacturing base (Sforzi and Boix, 2015).

Becattini already identified in the mid-1970s that, against all the odds, industrial-based cities such as Prato in Tuscany had shown greater resilience to the crisis of 1973-1974 than the great metropolis of the Milan, Turin and Genoa triangle. These were cities with an industrial base whose deep roots in industrial history were characterised by the presence of high levels of competition and, at the same time, important areas of cooperation between companies. They were systems open to competition, with a large capacity for exportation.

They also presented a fundamental characteristic: they obtained increasing returns in industrial production (Becattini, 1975). But these returns were not explained by the large size of the firm or the productive plants, but by the existence of external economies related to the city and the environment in which they produced.

It was a recreation of the "industrial districts" first described by Alfred Marshall in Book IV of his *Principles of Economics* (Marshall, 1890). Faced with economists who had disregarded the concept of "industrial district" as either non-existent or irrelevant, Becattini proposed using this concept to characterise the functioning of a broad set of industrial-based cities in advanced countries such as Italy and a wide range of productive activities that can be segmented in different phases.

We highlight two elements of the Marshallian industrial district theory that can be very useful for the characterisation of a new generation urban inclusive growth strategy (Trullén, 2015a). The first is the definition of the unit of analysis: it is the city of industrial base, not the company or the state. The second is the existence of increasing returns in industrial production obtained not by vertical integration of production but by systems of specialised small and medium-sized firms, each one of them in a phase of a production system that can be segmented into different phases (Trullén, 2015b).

Little attention has been paid to the fact that the approach of the Marshallian Industrial District has significant consequences on the distribution of income. We will identify the three most relevant.

On the one hand, it obtains positive results in competitive terms with respect to the big industrial corporations that are part of the origin of the great inequality according to the hypothesis of Piketty. On the other hand, they increase productivity and thereby increase wages, the central objective of any

inclusive growth strategy. They also preserve industrial employment, which is characterised by the existence of higher relative wage levels (Signorini, 1994).

The theory of the Marshallian industrial district also affects foreign trade. It needs increasingly larger external markets to preserve the degree of competition of firms. A protectionist productive system would block economic growth.

And it also affects cooperation between firms, a necessary condition in a new production model based on innovation originated in urban areas with very favourable environmental conditions. In addition, industrial district dynamics can be extrapolated to a relevant part of activities related to the knowledge economy, including services of high added value such as those related to information and communication technologies (Trullén, 2007 and 2011)³.

The urban nature of the industrial district goes far beyond the merely territorial view of the specialised industrial city.

In short, the Marshallian industrial district theory presents very appropriate characteristics to define different models of inclusive urban growth. It is not only useful to understand the sectorial dynamics of the manufacturing industry but also advanced services. In addition, cities in the new economy of knowledge can preserve important phases of the value chain of manufactures with high levels of knowledge intensity. They will thus be an active subject of industrial strategies, including advanced services.

4.3. The growth model has to be exporter and inclusive, and must be based on the empowerment of urban external economies

Both from Piketty's approach to capitalism in the twenty-first century and from the Becattinian proposal of the Marshallian industrial district, the context in which the dynamics of the economic system operates is that of an open economy. Faced with the "protectionist solution" that certain economic and political conceptions pose as a response to the delocalising consequences

³ The spatial dynamics of knowledge-intensive activities such as those related to information and communication technologies is similar to that of the manufacturing activities traditionally contemplated in studies of Marshallian industrial districts. An application of this idea is found in the experience of 22 @ Barcelona, a project that assumed that high and medium-high knowledge economy activities could be spatially concentrated in the old manufacturing industrial zones located in industrial cities, including the central nucleus of the metropolis. Vid Trullén (2011).

of an open economy, an inclusive urban growth strategy must be framed within the context of external openness of the economy.

The question that arises is whether it is compatible to follow a free trade channel and at the same time obtain sustained results in distributive terms. In the current phase of the investigation, we believe it is necessary to study concrete cases of cities or metropolis that have undergone processes of external opening of their economies and that at the same time have registered improvements in the personal distribution of income.

In the next section we will study the case of Barcelona which also registers with special intensity the economic crisis of the period 2008-2013 and responds to it with a significant expansion of foreign trade.

It is important to retain the role of urban external economies in these cities, both those of the Marshallian industrial district type and those associated with the economies of urbanisation. The role of small and medium-sized firms in the functioning of the economic system in a relevant part of industrial and service production and in an open economy must be highlighted.

And it is also necessary to identify in the dynamics of Marshallian industrial districts the central role of foreign trade. As there is a microeconomic context in which there are growing returns in industrial production, the foreign sector must expand to ensure that the competitive conditions in the district's production are maintained. Therefore, we must consider policies to promote urban external economies in a context not of economic or commercial protectionism but of free trade.

4.4. The role of urban policies as activators of productivity growth from the perspective of the Marshallian industrial district.

So far we have seen that urban policies can play a very important role as activators of productivity growth, the central problem that, according to Piketty, affects the economy of the 21st century. Growth must be geared from the city, and should be inclusive. And we have also seen how a prominent place is given to the Marshallian industrial district theory proposed by Giacomo Becattini to suggest urban strategies of inclusive growth that affect the obtainment of increasing returns from the strengthening of urban external economies. Specialised small and medium-sized enterprise systems are an alternative to large enterprises in obtaining these increased returns. In addition, they have a positive impact on the personal distribution of income.

Consequently, urban policies oriented from the perspective of the Marshallian industrial district can be an essential part of an inclusive growth strategy. These are inclusive growth policies with an exporting industrial base and in an open economy context, as will be seen in section 6.

5. A CASE OF A STRATEGY OF INCLUSIVE URBAN GROWTH AND EXPORTING INDUSTRIAL OUTPUT IN THE FACE OF THE CRISIS

This section analyses a case of an industrial-based city that has managed to grow in economic and demographic terms and, at the same time, improve the distribution of income over the period 1986-2006. This example is Barcelona. This city, however, has registered with particular intensity the economic crisis of the period 2008-2013, in the context of the Spanish economy.

We will first identify the general evolution of the economy since 1986, the year of Spain's entry into the European Communities and the Barcelona nomination for the 1992 Olympic Games. And we will characterise the economic crisis from data on employment growth and unemployment. We also study the contribution of the external sector during the exit from the crisis.

Finally, the second epigraph is devoted to studying the dynamics of income distribution and is compared with the evolution of the Gini index in the Eurozone countries. Two central problems are identified in the process of adjustment of the economy of Barcelona, which are the high unemployment rates during the crisis of foreign workers and young people.

5.1 Barcelona: from urban inclusive growth to crisis

The recent economic crisis that has affected the economy of Barcelona in particular, and the Catalan and Spanish in general, has resulted in the generation of important imbalances in the employed population and, as shown below, in a dual functioning in the labour market. These are imbalances that have a clear incidence in the levels of inequality of the population.

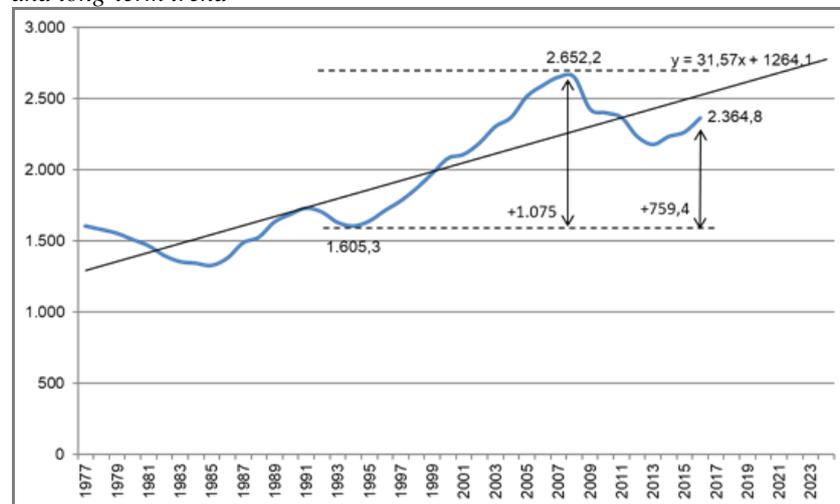
The figure below shows the evolution of the employed population in the province of Barcelona from 1977 to 2016 and the long-term trend line. The first economic impetus on entering the European Community and the encouragement derived from the 1986 selection of Barcelona as the site of the 1992 Olympic Games can be clearly seen. A second and very significant impulse took place after 1996, with the deepening of European economic integration (the beginning of the third phase of Economic and Monetary

Union, which would lead to the introduction of the new Euro currency in 2002), which coincided with the implementation of a new economic strategy by part of the Barcelona City Council, based on the development of knowledge economy, as a way to deal with the industrial crisis and the change in the ways of producing that this technological change was driving. This period of economic growth would last until the recent crisis of 2008 and in this period, only in the province of Barcelona, more than one million jobs were created.

The arrival of the crisis in 2008 interrupts this extraordinary period of growth of employment, almost half a million jobs were destroyed in just 5 years. From 2014 however, the situation begins to improve with the creation of new occupation, recovery that gains strength in 2015 with the implementation of heterodox but effective monetary measures by the European Central Bank.

The most recent data show that since the beginning of the recovery, more than 200,000 jobs have already been created in the province, although there are still some 300,000 needed to recover to the levels of the 2008 peak of 2,652,200 workers. In any case, it has returned to the path of long-term growth.

Figure 1. Employment in the province of Barcelona 1977-2016 (thousands) and long-term trend

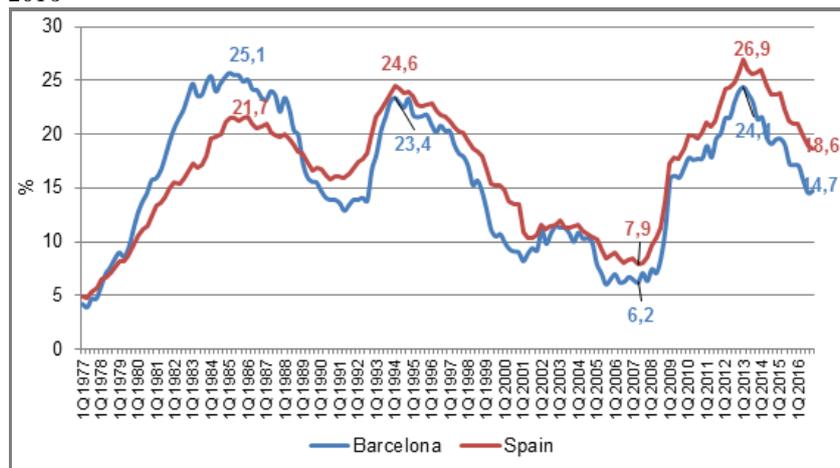


Source: EPA, INE.

These different periods of economic dynamism have, of course, resulted in imbalances in the labour market, reflected in the unemployment rate. Figure 2 presents this rate for the province of Barcelona (an equivalent series for the

city of Barcelona is not available) in the period 1977-2016. The recent crisis clearly appears when reaching the peak of unemployment in the first half of 2013 with rates above 24% in Barcelona and almost 27% in Spain. Since then the unemployment rates have been reduced significantly, although the levels that were given before the beginning of the crisis have not yet been reached. On the other hand, the same graph shows how episodes of high unemployment had already occurred in the country's recent history, first in the mid-1980s, a period that coincided with the adjustment and adaptation of the Spanish economy to international competition (in 1986 Spain became part of the European Economic Community), and again in the mid-1990s, coinciding with the period after the Olympic Games in Barcelona in '92. It is also interesting to note that during the older episode, Barcelona recorded an unemployment rate five percentage points higher than the whole of Spain, while in the most recent situation this has been reversed, since Barcelona has recorded a rate two points below that of the Spanish.

Figure 2. Unemployment rate in the province of Barcelona and Spain, 1977-2016



Source: Labour Force Survey, INE.

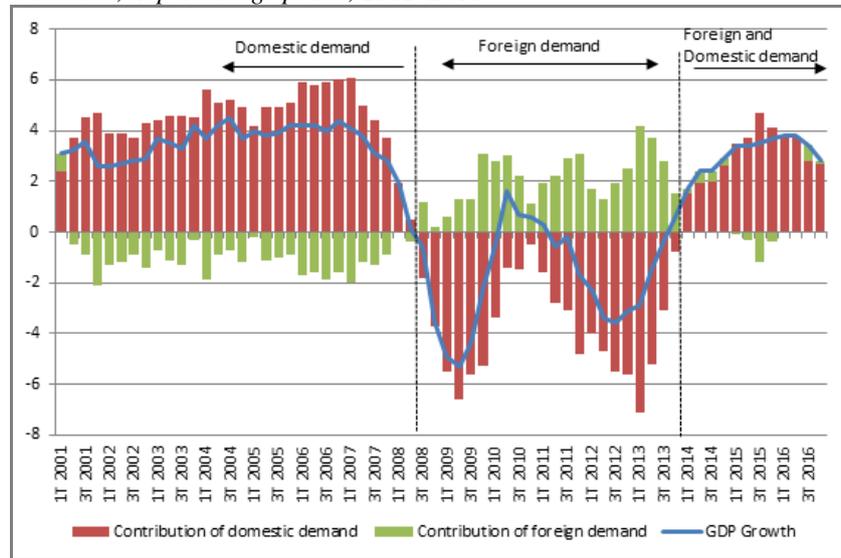
A key factor in understanding the recent evolution of the Barcelona economy is the role played by external demand in GDP growth. There is no data for the province, but there is for the autonomous community of which it forms part, which is Catalonia, in which the province of Barcelona has a very significant weight, of approximately 75% of the total GDP.

As can be seen in figure 3, it is worth noting that until 2008 the main growth driver of the Catalan economy was only domestic demand, with the foreign sector actually being a brake, as imports exceeded exports. This situation

changed abruptly with the crisis, starting in 2008, when domestic demand collapsed and external demand, that is exports, took over as the motor of growth (or, more precisely, of a lower fall in GDP) in the years 2009-2013.

In the most recent period, from the end of 2013 onwards, domestic demand regains momentum, although external demand continues to play a mainly positive role (ie exports outpace imports). This is a very relevant fact since it had not occurred before, and can show the beginning of a change in the economic model in which international competitiveness and, therefore, productivity, has a leading role in economic growth.

Figure 3. Contribution of domestic and foreign demand to GDP growth in Catalonia, in percentage points, 2001–2016



Source: Idescat.

5.2. Inclusivity

In the previous section we have seen how the economic evolution of Barcelona during the long period of 1986 to the present has been characterised by stages of strong growth, but not exempt to periods of crisis. However, there is a characteristic that makes it necessary to differentiate between the period prior to 2008 and the following years: the evolution of inequality. The indicators of income distribution - which we will see below - show a continuous reduction in inequality that is interrupted by the economic

crisis that began in 2008, with the result that income distribution worsens to the levels of 1995. This increase in inequality is related to the working of the labour market, in the sense that the impact of the crisis falls to a large extent on the collectives of foreign workers and youth workers.

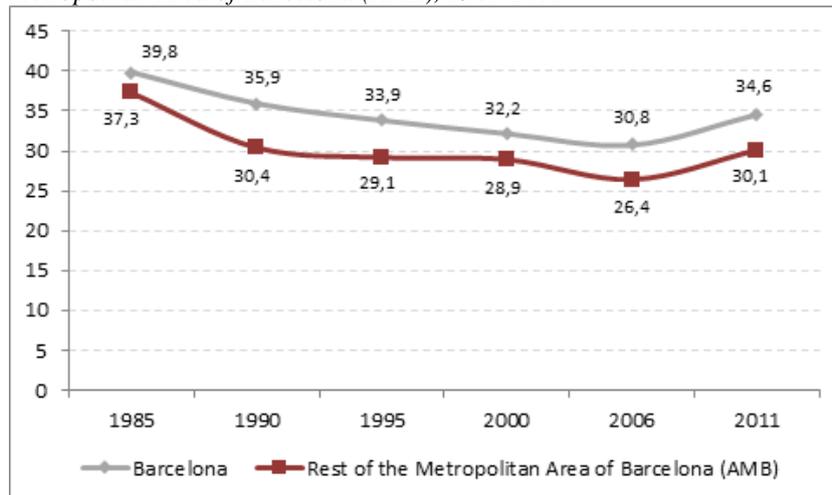
One of the most widely used indicators to measure inequality in income distribution is the so-called Gini coefficient or index. This coefficient varies between 0 and 100, with 0 being the situation of maximum equality or distributive equity and 100 the situation of maximum inequality: as inequality increases, the Gini coefficient approaches the value of 100.

The Gini coefficient is an indicator that, like other indicators of income and inequality, due to the type of data required, it is not usually available for local areas. It is rarely available for large cities, metropolis, or even provinces, nor for historical series that go back several decades in time.

However, in the case of Barcelona, this information is available thanks to the Surveys of living conditions and habits of the population that has been carried out by the Institute of Regional and Metropolitan Studies of Barcelona since 1985.

The availability of this information makes it possible to identify a series of significant events in the development model of Barcelona and the impact of the recent economic crisis experienced by the Spanish in general and in particular the Catalan economy. The first aspect to highlight in the case of Barcelona is that, as can be seen in the following graph, in the municipality of Barcelona, that is, the nucleus of the metropolitan area, the Gini coefficient is always above the coefficient corresponding to the rest of the area, highlighting the fact that cities, the centre of the metropolis are configured as the areas with greater inequality. Secondly, it should be noted that the Gini index reduces until 2006 and since then, in parallel with the economic crisis, inequality grows back in 2011 to the levels existing in 1995.

Figure 4. Gini coefficient of disposable income. Barcelona and rest of the Metropolitan Area of Barcelona (AMB), 1985-2011



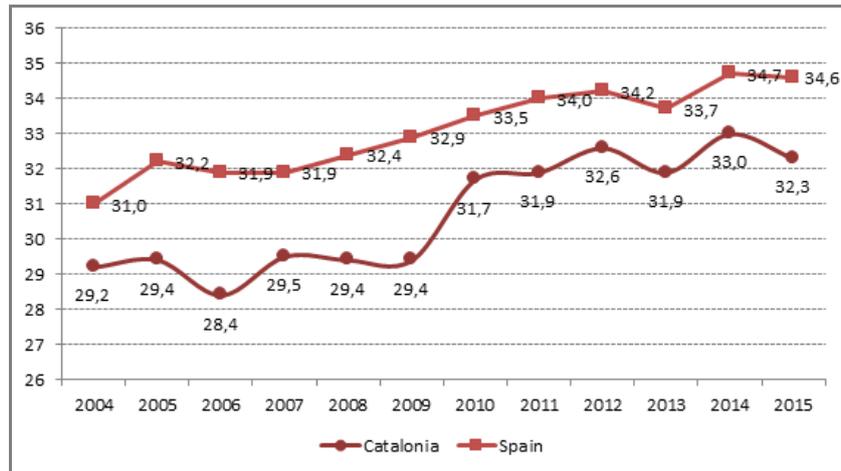
Note: Data for 1985 refer to the 27 municipalities of the former Metropolitan Corporation of Barcelona.

Source: IERMB Survey of Living Conditions and Habits of the Population, 1985-2000; Idescat and IERMB Survey of Living Conditions and Habits of the Population, 2006-2011.

As of 2011 the worsening of income distribution can only be observed by using the Gini coefficient published by the official statistical offices of Catalonia and Spain, Idescat and INE respectively. Even though they refer to the regional and state level, and no longer to the metropolitan, they have the advantage that they are produced with an annual periodicity.

Figure 5 shows the increase in inequality since 2004 both in the Autonomous Community of Catalonia, whose capital is Barcelona, and for the whole of Spain. This increase, although showing some ups and downs, seems to have stopped at the end of the period for which data are available, in 2015. The graph also shows how the level of inequality is lower throughout the period in Catalonia than in Spain.

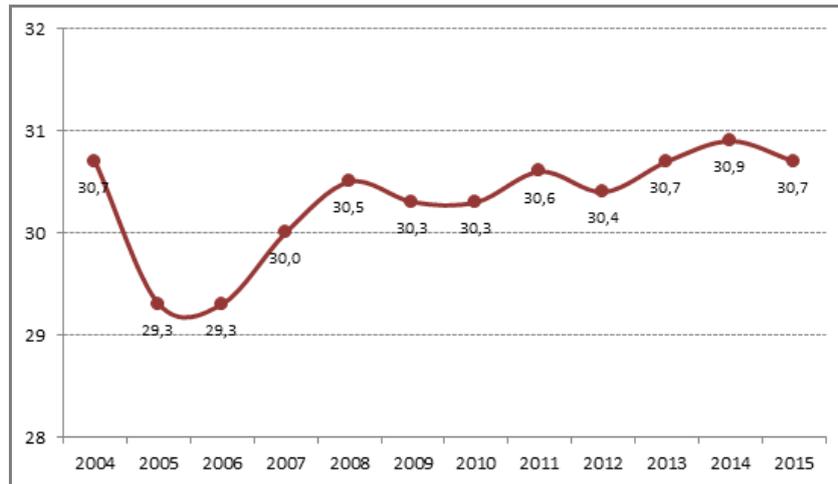
Figure 5. Gini coefficient of disposable income. Catalonia and Spain, 2004-2015



Source: for Catalonia, Idescat, based on data from the Survey of living conditions, INE, base 2004 for the years 2004-2012 and base 2013 for the years 2013-2015; for Spain, INE from data from the Survey of living conditions, base 2004 for the years 2004-2007 and base 2013 for the years 2008-2015.

Finally, this trend towards greater inequality in Spain contrasts with the much more stable evolution experienced in European countries belonging to the Euro zone; in fact, the value of the Gini coefficient in 2015 was exactly the same as at the beginning of the study period in 2004 (see figure 6).

Figure 6. Gini coefficient of disposable income. Euro zone countries (18), 2004-2015



Source: Eurostat, based on data from EU-SILC.

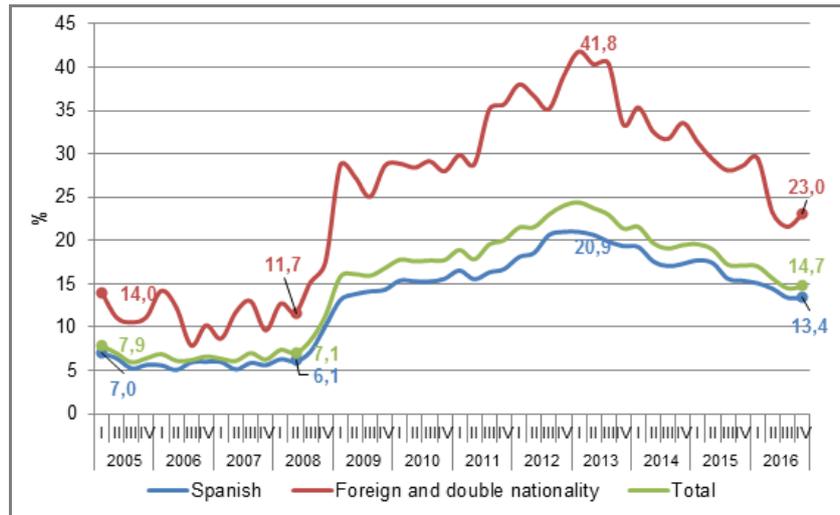
From this data, one can clearly observe that the economic crisis has had a regressive effect in Catalonia and Spain, which, however, has not occurred for the group of the more developed European countries integrated in the Euro common currency zone.

The pre-crisis growth model, as well as institutional characteristics, has made the impact of the crisis fall more heavily on two specific groups. It should be recalled that the period of strong growth until 2008 was characterised by a low or zero productivity growth which facilitated the incorporation of a large number of additions to the labour market that did not require high levels of qualification, from abroad or also young workers. At the same time, there is a labour market that allowed (and allows) segmentation into one group of workers with stable, long-term contracts and another group with temporary contracts. This does not stimulate the acquisition of skills to increase productivity and led to the adjustment to the evolution of the economic cycle being done by the adjustment in quantities of workers.

As a result, the crisis has had a very significant impact on the working population of foreign origin and of younger ages. The following graph shows how the onset of the crisis in the second half of 2008 translates into an increase in the unemployment rate of all workers, but more dramatically for foreign workers: albeit the unemployment rate of foreign workers is largely twice as high as that of nationals during the period of greatest crisis in the

first quarter of 2013, almost half of the foreign workers were unemployed (42%), while in the case of nationals the unemployment rate did not exceed 21%, in any case also a very high level.

Figure 7. Unemployment rate by nationality, province of Barcelona, 2005-2016

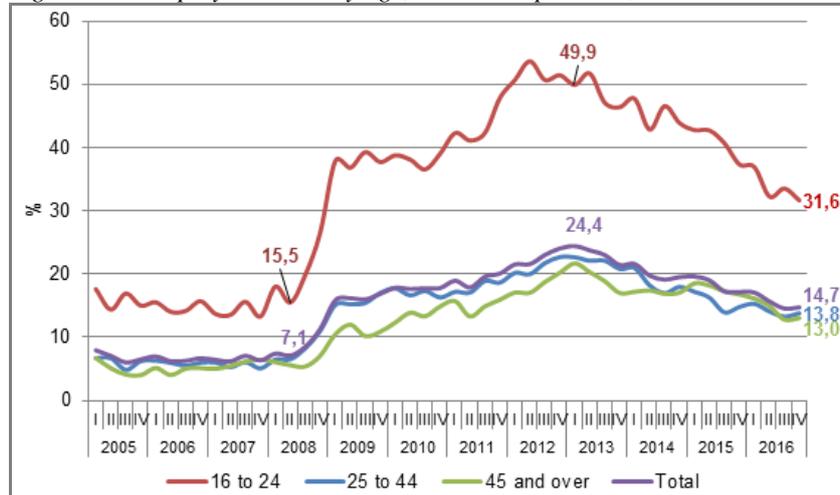


Source: IERMB from the micro data of the Survey of Active Population, INE.

The impact of the crisis on young people is also very significant. Figure 8 shows the evolution of the total unemployment rate, and also by age groups, in the province of Barcelona in the period 2005-2016. Similar to what happened to unemployment by nationalities, unemployment increased dramatically from 2008, in this case the age bracket with the highest unemployment rates being the youngest, from 16 to 24 years. As with foreigners, the youth unemployment rate doubles that of the total unemployed during the whole period, but although in the global case the maximum level of unemployment reaches the beginning of 2013 with a rate of 24.4 %, the highest value of youth unemployment rate occurs in mid-2012, reaching over 53%. That is, at the most critical moment of the crisis, more than half of active young people became unemployed.

Overall, the information presented in this section highlights that a more inclusive growth policy needs to take into account in its design the greater sensitivity of foreigners and younger workers to the crisis phases of the economic cycle.

Figure 8. Unemployment rate by age, Barcelona province, 2005-2016



Source: IERMB from the micro data of the Survey of Active Population, INE.

6. URBAN POLICIES FOR AN INCLUSIVE GROWTH STRATEGY

The increase in productivity is a key strategic objective for a city or metropolis that aims at sustainable growth objectives of an inclusive nature. In a metropolis that bases its strategy on its export capacity, be it manufacturing or services, this objective must be central. According to the work of Roberto Camagni, in a global environment dominated by growing international competition, a relevant part of the firms' competitive success lies increasingly in the competitive capacity of the metropolis in which they operate. And the origin of the competitive advantage resides in a significant part in the territory (Camagni, 2005). The question is whether it is possible to define a competitive strategy that is consistent with the objectives of equity. It is about linking productivity and inclusion in the urban economic strategy. And this challenge constitutes the essence of an inclusive urban strategy.

We will first examine two alternative strategies to improve competitiveness. Then the characteristics of an urban policy of inclusive growth will be examined.

6.1. Two ways to improve competitiveness.

Let us first identify the strategic dilemma in which the export-based metropolis is to face the challenges arising from the increase in international competition:

- The passive path of costs (compete with wage costs or other non-wage costs such as those derived from a low level in the provision of public services); it can act centrally to modify the labour conditions to make labour supply more elastic with respect to the growth of the product.
- The active path of productivity growth, with a strengthening of the industrial base (including a return to the leading role of the manufacturing sector), with a strengthening of the knowledge economy, and with the enhancement of advanced services, green economy and quality tourism.

Let us examine the consequences on the distribution of income of these two alternative strategies⁴.

The passive path, by trying to operate on the process of formation of wage costs (with labour reforms that allow the increase in product elasticity of the demand of employment), has results similar to that of devaluation, but in a context of non-control of the monetary variables; it is an "internal devaluation" that affects not the entire economic fabric but all of the workforce. Therefore, if productivity could be increased by lowering wage costs, a negative result would be obtained in terms of income distribution.

The active path can operate on the territory. It is a question of influencing costs by promoting the generation of competitive advantages of a territorial nature. The instruments of this strategy would not be so much the effect on the cost of the factors of production (land, labour and capital), but on what is known in the literature on growth as "total factor productivity" on that part of the productivity growth that is related to the conditions in which firms use the productive factors. This is the framework for new European policies such as the 2020 Strategy. But the consequences on income distribution are inversely related to the passive strategy.

⁴ An application of these principles is found in the study published by the Institut d'Estudis Regionals i Metropolitans de Barcelona: *Creixement Inclusiu: el gran repte estratègic metropolità*. ("Inclusive Growth: the great metropolitan strategic challenge") (Trullén, 2015c).

And it is precisely this active path based on the growth of productivity that can be activated from a metropolitan strategy of inclusive growth.

We must emphasise that the active path has diametrically opposed consequences in the income distribution in comparison to the passive route centered on the reduction of wage costs. In the active way integrated territorial policies and social services gain weight, and above all, the set of economic activities dense in knowledge, with higher levels of productivity and have, therefore, higher levels of wages. It improves the weight of salaries of employees in the functional distribution of income. And on this basis the improvements are transferred to the personal distribution of income.

The active path towards competitive improvements is the scenario in which an inclusive urban growth strategy can operate.

6.2. Inclusive urban policies to increase productivity⁵

The active path is the framework in which to define inclusive urban policies that improve productivity. And in this framework the different metropolis can define different territorial policies that have the improvement of external competitiveness in common.

Taking into account that each city or metropolis presents different characteristics derived from its economic and institutional trajectory, different urban policies can be considered which may be implemented simultaneously or consecutively.

We will distinguish four territorial economic policies on which to implement this strategy:

- Promote policies based on the Marshallian industrial district. The aim is to define local policies that support economic processes based on small and medium enterprises. These are activities that have a significant degree of agglomeration, both of a manufacturing nature and related to the knowledge economy and advanced services. A new zoning based not on the sector but on the characteristics of the district constitutes an urbanistic tool which is an alternative to the traditional sectoral zoning.

⁵ Vid IERMB (2015, pp. 44 and ss).

- Foster economies of diversity in the whole of the metropolis, from a network of polarities (poly-nucleation) that respects the singularity of each pole. Diversity economies in the style described by Jane Jacobs constitute a framework not only for a socially integrated strategy but for an economic environment favorable to new productive conditions.
- Impulse of pre-existing or new clusters, such as the French competitiveness hubs, Spanish groups of innovative firms (AEI) or Marshallian industrial districts.
- The development of infrastructural policies for transport and communications, which focus both on the development of a network that connects different cities or metropolis to each other and that focuses on the inner development of city networks in the metropolis.

The objective is to generate external economies of a territorial nature of different types, but which are oriented towards the growth of productivity. We must emphasise that in these four paths towards inclusive urban growth, the impulse towards employment growth objectives must predominate, which are the basis on which achieving results in redistributive terms can be guaranteed, from the generation of added value. This should not exclude, rather the opposite, defining inclusive strategies of a non-economic but social nature that are not the subject of analysis in this study.

7. CONCLUSIONS: INCLUSIVE GROWTH HAS TO BE DEFINED FROM THE CITIES AS A BASE

This research starts from a diagnosis about the evolution of the western economies in the last decades: there is an insufficient growth of productivity and at the same time the distribution of income worsens.

International institutions such as the OECD or the United Nations raise the need to implement new strategies for inclusive urban-based growth.

This paper seeks to identify the economic fundamentals on which to define new urban inclusive strategies aimed at improving productivity and, at the same time, fostering growth to improve the levels of inequality.

It proposes a theoretical framework that recognises the insufficient growth of productivity in 21st century capitalism. An approach to the problem is proposed from the Marshallian industrial district theory. The growth model is based on the existence of spatial concentrations of small and medium-sized firms that obtain increasing returns in production without the need to integrate into large companies.

The study is given of a case of an export-based metropolis, Barcelona, which has achieved high levels of economic growth and employment and, at the same time, significant reductions in the level of inequality.

Finally, urban policies are proposed that can be implemented with the objective of making the growth objective compatible with the objective of improving the distribution of income. Inclusive growth therefore has a fundamental urban dimension, especially in advanced economies with systems of small and medium-sized firms.

BIBLIOGRAPHY

- Becattini, G. (ed) (1975). *Lo sviluppo economico della Toscana*. Firenze: IRPET.
- Becattini, G. (1979). Dal settore industriale al distretto industriale. Alcune considerazioni sull'unità d'indagine dell'economia industriale. *Rivista di Economia e Politica Industriale*, 1, 7-21. English Translation (2004): From the industrial "sector" to industrial "district": some remarks on the conceptual foundations of industrial economics. In Becattini, G. *Industrial Districts. A New Approach to Industrial Change*. Cheltenham, UK: Edward Elgar.
- Becattini, G. (2015). *La Coscienza dei Luoghi. Il territorio come soggetto corale*. Roma: Donzelli Editore.
- Boix, R. and Trullén, J. (2010). Industrial districts, innovation and I-district effect: territory or industrial specialization? *European Planning Studies* 18, 1705- 1727.
- Camagni, R. (2005). *Economía urbana*. Barcelona: Antoni Bosch.
- IERMB-AMB (2015). *Creixement Inclusiu: el Gran Repte Estratègic Metropolità. Anuari Metropolità de Barcelona 2014*. Barcelona: IERMB.
- Kuznets, S. (1955). Economic growth and income inequality. *American Economic Review*, 45(1), 1-28.
- OECD (2016). *Making Cities Work for All: Data and Actions for Inclusive Growth*. Paris: OECD Publishing.
- Piketty, T. (2013). *Le capital au XXIe Siècle*. Paris: Éditions du Seuil.
- Rayuela, V., Veneri, P. and Ramos, R. (2014). *Income Inequality, Urban Size and Economic Growth* (OECD Regional Development Working Papers 2014/10). Paris: OECD.
- Sforzi, F. and Boix, R. (2015). What about Industrial District(s) in Regional Science? *Investigaciones Regionales*, 32, 61-73.

- Signorini, L.F. (1994). Una verifica quantitative dell'effetto distretto. *Sviluppo Locale, 1*, 31-50.
- Trullén, J. (2011). The Barcelona City of knowledge Project and the 22@Barcelona. *Revista Econòmica de Catalunya, 64*, 22-29.
- Trullén, J., Boix, R. and Galletto, V. (2013). An Insight on the Unit of Analysis in Urban Research. In P.K. Kresl & J. Sobrino (Eds.), *Handbook of Research Methods and Applications in Urban Economies* (pp. 235-264). Cheltenham: Edward Elgar.
- Trullén, J. and Galletto, V. (2014). Inclusive growth and urban policies: the case of Barcelona. In *Second OECD/Ford Workshop. Changing the Conversation on Growth: going inclusive* (pp. 61-63). New York: Ford Foundation.
- Trullén, J. (2015a). Giacomo Becattini and the Marshall's Method. *Investigaciones Regionales, 32*, 42-60.
- Trullén, J. (2015b). Inclusive growth and urban strategies: the case of Barcelona. In P.K. Kresl, *Cities and Partnerships for sustainable urban development* (pp.111-127). Cheltenham: Edward Elgar.
- Trullén, J (2015c). Creixement Inclusiu: El gran repte estratègic Metropolità. In IERMB-AMB, *Creixement Inclusiu: el Gran Repte Estratègic Metropolità. Anuari Metropolità de Barcelona 2014* (pp.22-56). Barcelona: IERMB.
- United Nations (2016). *New Urban Agenda. Quito Declaration on Sustainable Cities and Human Settlements for All. Resolution adopted by the General Assembly December 23th, 2016*. Retrieved from: <http://habitat3.org/wp-content/uploads/New-Urban-Agenda-GA-Adopted-68th-Plenary-N1646655-E.pdf>
- UN-HABITAT (2015): *Inclusive Cities* (HABITAT III Issue Papers no. 1). New York: UN-HABITAT.