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Regional Employment Disparities in Tunisia post-2011: A Comparative Study Using ESDA

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Abstract. This article aims to focus on regional disparities in employment and their effect on the level of inequality and poverty in Tunisia post-2011. In this paper, we use the method of Exploratory Spatial Data Analysis (ESDA) to visualize the local and global distribution of the sampled data. We apply this method to data on the unemployment rate, the activity rate, the poverty rate and the regional development index (RDI) in 2015. This method shows that there is an unequal distribution of regional variables. Thus, these spatial disparities are strongly correlated with the level of regional development in inland and coastal regions.

Keywords. ESDA, inclusive Growth, Inequality, Regional development, Tunisia, unemployment

Introduction

Employment can influence our identity as well as our relationships with others. It is a source of respect and dignity that connects people with other networks. Employment represents an opportunity that can shape young people's expectations and aspirations for the future. Indeed, access to employment opportunities creates a sense of belonging and participation in society. Moreover, employment is a fundamental right which ensures our connectivity with others and reduces the mistrust that causes social and spatial disparities. Besides, employment is a key vector for the economic growth of nations in the future following a political and economic crisis.

Employment can also have an impact on social cohesion through its effects on identity and perceptions of equity (Belhedi 2012). Most importantly, it strengthens the capacities of individuals by improving their standard of living and, subsequently, the living conditions of populations.

However, unemployment is a cruel and intolerable situation, especially among young people. This tremendous phenomenon excludes people from community life and can cause depression and hopelessness about the future. This situation of hardship and misery calls for the development of new activities and a better distribution of the latter in the countries. Unemployment rates are very high, especially in rural areas due to the absence of industry in these regions and to the dominance of the agricultural sector.

In this regard, decision-makers need to better understand the impact of different socio-economic strategies on well-being in each spatial entity of the country in order to pursue a more

sustainable and inclusive model of development.

More detailed analysis is needed to illustrate the realities of a given population to ensure a healthy and prosperous life for everyone. It is therefore essential to focus on the multiple factors that lead to the achievement of inclusive growth, equity, social and spatial justice within a country.

In Tunisia, everyone testifies that the revolution was triggered by unemployed young people who have denounced the lack of transparency on the labor¹ market. The Tunisian revolution is another major fact which sheds light on the fact that unemployment is no longer manageable in the periphery regions and that citizens have exhausted all their patience to remain in misery at an era of digitalization.

According to the National Institute of Statistics (INS) of Tunisia, the unemployment rate dropped to 14.9% in the fourth quarter of 2019. The number of unemployed people estimated for the fourth quarter of 2019 was 623.9 thousand of the total active population, compared to 628.3 thousand unemployed for the third quarter of 2019. The unemployment rate recorded for the fourth quarter was 14.9%, down from the third quarter of 2019 (“Indicateurs de l’emploi et du chômage, quatrième trimestre 2019” n.d.).

The question here is: what should be done? How can we find a solution to limit unemployment and create jobs?

To answer these questions, the objective of this article is to present a proposal for a spatial analysis of the most recent developments in regional development and employment in Tunisia. In the first part, we build on the concept of inclusive growth to ensure shared prosperity and create jobs.

We aim to highlight the real and current employment situation and its role in regional disparities in terms of regional development in Tunisia post- 2011.

In the second part, we apply the Exploratory Spatial Data Analysis (ESDA) method to visualize the global and local distribution of the selected data.

Analytical outline

Despite the enormous impact of economic growth on economic transformation and poverty reduction, unemployment rates remain high in fragile and low-income areas. However, although economic growth can improve the economic situation by increasing incomes, it alone cannot reduce social and spatial inequalities.

In addition, economic growth has left many people and regions lagging behind. Every day, inequalities are increasing around the world. Moreover, regional disparities are becoming one of the most serious problems in the era of globalization.

The relationship between growth and inequality has long been a scientific concern, among economists, for example ((Barro 1995); (Barro 1991), (Castelló-Climent 2004) (Castelló-Climent 2010a); (Kolev and Niehues 2016).

A large and evolving body of empirical work has concluded that inequalities constrain growth and undermine regional productivity and, subsequently, affect political stability.

(Castelló-Climent 2010b) empirically studies the effect of income and human capital inequality on economic growth in different regions of the world by estimating dynamic panel data. The results show a different effect of inequality on growth depending on the level of development of the region. Specifically, it is a negative effect of income on economic growth.

In the same context, (Allègre 2015) presents a very detailed literature review to explain theoretically the negative impact of inequalities on growth. The author returns to theoretical

¹ Chapter 4: Employment and social cohesion, page 127; World Development Report 2013

channels to illustrate the links between inequality and growth in a derived and sustained manner. The idea here is that inequalities have different impacts on growth. In order to prove this, it is necessary to analyze the different channels that can be affected by this generally negative causal impact. He used several channels to improve the theoretical discussion on the causality problem but he pointed out that these channels are not the same in rich and developing countries for several reasons.

In the same study, (Allègre 2015) shows that the relationship between growth and inequality depends on the development policies adopted, redistribution and financial policies, etc....

However, the empirical results of (Kolev and Niehues 2016) clearly show the contradictory relationship between growth and inequality. In their view, it is a non-linear relationship between inequality and growth. Thus, the effect of net income inequality on growth appears to be negative only for less developed countries and for countries with high levels of inequality. So growth and inequality are two parallel phenomena with double causal effects.

From this large perspective, it can be said that this is an age-old problem and all studies affirm that economic growth always masks social inequalities. But, the question here is the following: how can social and spatial inequalities be reduced?

In a rapidly changing global environment, it is clear that we need to focus on the relationship between inclusive growth and inequality in order to make this reasoning deeper and more dynamic. According to (Bérenger and Vérez 2016), inclusive growth is important for several reasons: reducing inequality, eradicating poverty, creating employment opportunities for every segment of the population and distributing the benefits of a country's economic growth more equitably. In other words, they argue that inclusive growth is the magic bullet that ensures an equitable distribution of economic growth.

Brief presentation of the definition of inclusive growth

The definition of inclusive growth remains complex and it seems very useful not to confuse it with sustainable development. (Jallab 2012) has developed a historical version of this concept. According to him, the concept of "inclusive" growth emerged in the 1950s. It is an old concept in the economics literature, but it has enjoyed renewed interest in the 1990s. Indeed, "inclusive" or pro-poor growth can be defined as any development policy that benefits the poor population. To this end, most economic analyses address inclusive growth through strategies linked to poverty reduction and socio-economic inequalities. In addition, inclusive growth is a multidimensional concept. This concept is similar to poverty analysis. The other recalled the definition of (Boccanfuso and Ménard 2009). They considered that inclusive growth can be characterized by three approaches:

- Inclusive growth: relative pro-poor growth
- Inclusive growth: absolute pro-poor growth
- Inclusive growth: growth mixes the two approaches

In the same article (Jallab 2012) and in turn, (White and Anderson 2001) have integrated the notion of income to define inclusive growth. They consider that growth can only be inclusive "when the rate of income growth of the poorest populations exceeds the rate of income growth of non-poor individuals". The principle of this definition is that inclusive growth improves the income of the poor in order to reduce income inequality. So it must be beneficial, first of all, to the poor.

In the same perspective, (Osmani 2005) has proposed a more synthetic definition.

According to her, growth is said to be inclusive when it reduces poverty and inequality at the same time. Generally, economic growth will have implications for the structure of income distribution and subsequently increase total factor productivity. This creates a virtuous circle and a proportional increase in income among the poorest populations, which generates a reduction in inequalities (Jallab 2012).

In the same context, according to the World Economic Forum 2015 report, inclusive growth is about translating economic growth into an overall improvement in the standard of living of all citizens. In other words, it concerns both the process and outcomes of growth and the extent to which growth translates into widespread improvements in living standards, affecting all citizens rather than a privileged few.

According to (Treillet 2016a), inclusive growth is growth that is organized in such a way that the entire population can benefit from it. That is to say, to make growth inclusive, it is first necessary to create jobs for the poorest people in an economy in question. The author considers that poverty reduction is not sufficient to achieve sustained and inclusive growth. It requires a very precise targeting of the category in the first place, and an increase in employment by increasing labor productivity and population participation rates through training in the second place. This will improve human capital and increase the rate of employability, which reduces income gaps and allows access to basic services for all people.

In parallel, (Bérenger and Vérez 2016) defined inclusive growth from a broader approach. In their view, inclusive growth must allow the greatest number of people to participate and access the benefits of economic growth. It is not limited to the poor, but must benefit the greatest number of the vulnerable population. Indeed, this definition requires a separation between population groups: between the poor and the non-poor; between the poor and the vulnerable.

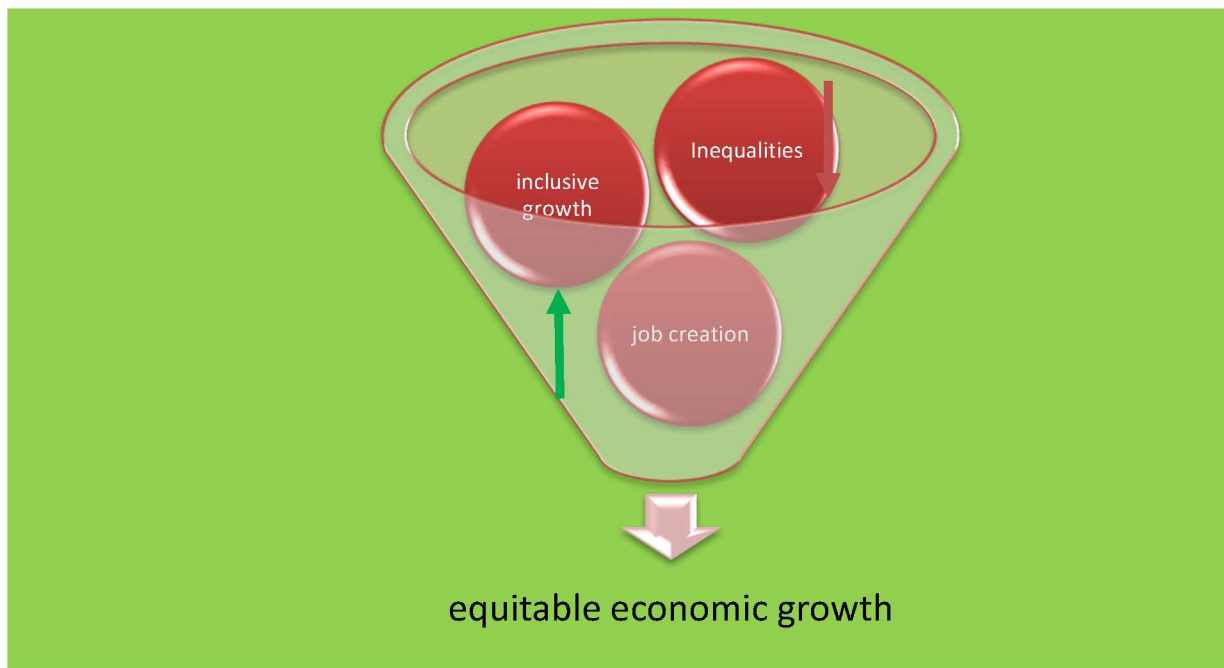
Indeed, the definition of inclusive growth remains complex to define. And the concept of inclusive growth is a multidimensional, very broad and global field. It concerns several categories of the population and several areas. Thus, in order to deepen the definition of inclusive growth, it is first necessary to identify its main pillars and objectives. Moreover, the notion of inclusive growth is a notion that depends on the general framework of the population and the region or country. In other words, each region and community must map out its own development plan to ensure inclusive growth that meets its needs and aspirations for the future. It is important, however, to recall the aims of sustainable and inclusive development in order to promote the social and spatial inclusion of people and reduce the exclusion of poor regions in order to achieve sustained growth. We can summarize the main objectives from the following definition: "Sustained growth should create jobs, which would promote poverty reduction and make growth more inclusive²...".

In our study, the goals of inclusive growth are our starting point. We start from the hypothesis that inclusive growth is the goal of every country because it allows regions and populations to be targeted in order to create real employment opportunities in all sectors and increase regional productivity (Treillet 2016b).

The following figure may provide a fairly clear understanding of our hypothesis and objectives. In fact, the notion of inclusive growth is therefore based on the creation of employment opportunities, which can accompany a reduction of inequalities in various forms and strengthen regional capacities.

² African Economic Outlook 2018: African Development Bank Group, Key Message, Page, xiii

Figure 1: The analytical framework



The alliance between these universes is both a reality and a challenge for the future. Economic regeneration, employment, social progress, social equity, sustainable development, intergenerational solidarity and the fight against all inequalities are urgent challenges.

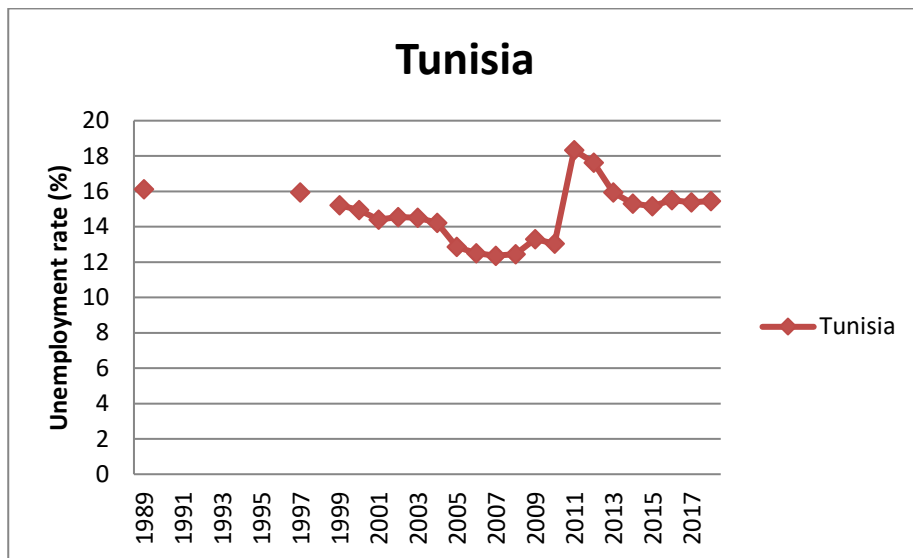
Today, the debate on inclusive growth is becoming very lively with the public and private sectors to find relevant solutions for ignorant regions and, subsequently, to promote local initiatives to create jobs and reduce unemployment.

According to the World Bank's annual report (2019), 60% of the population of the Middle East and North Africa region is under the age of 24, and it will need to create 10 million jobs per a year. Another most important fact shows that the goals of inclusive growth represent a major challenge in developing countries.

As for Tunisia, job creation and connecting vulnerable groups to jobs are among the objectives of the revolution in 2011. The Tunisian people are in search of an "inclusive Tunisia". For the time being, perfect comprehension of the level of unemployment and the level of employment in a country becomes an essential step in every reform.

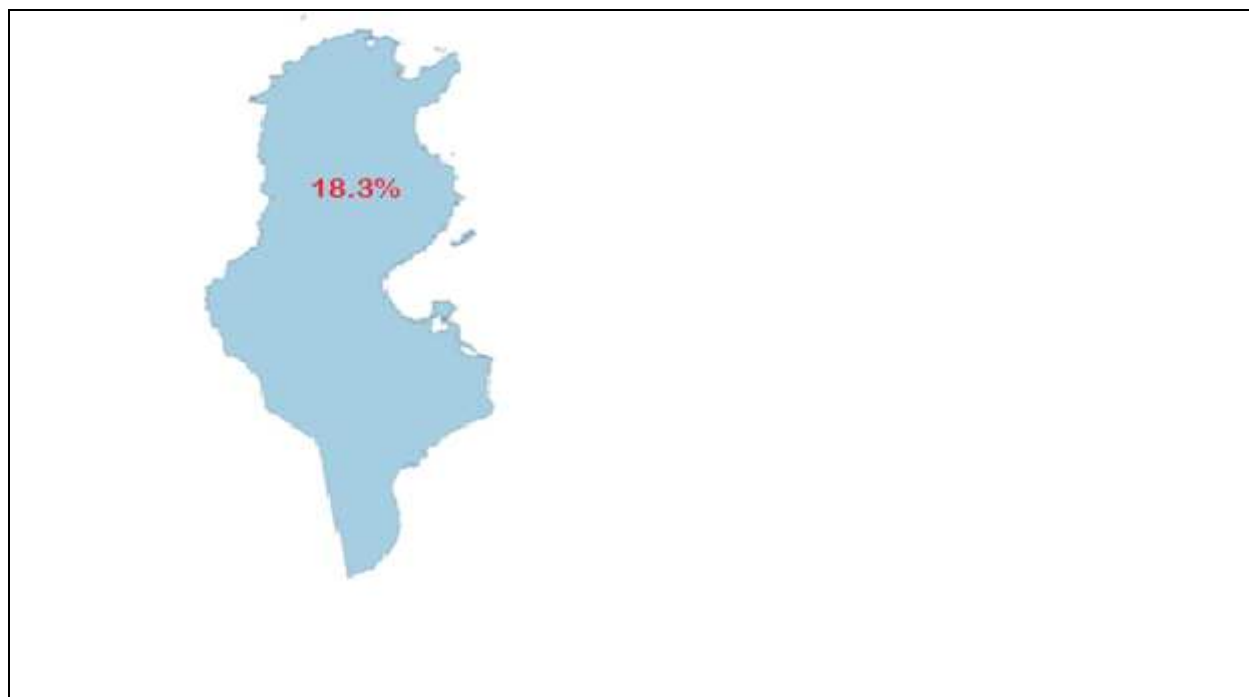
We will insist on these two points "unemployment and employment" in order to grasp the state of regional development in Tunisia.

Figure 2: The unemployment rate trend in Tunisia between 1989 and 2017



In fact, the figure analyses the unemployment phenomenon in Tunisia at the national level. This is undoubtedly a very serious and complicated situation, even if it is likely to decline slightly after 2011, on a very fragile employment base among young people and women. However, Tunisia needs to take into account the diversity and complexity of the situations of each spatial entity. In this period, the unemployment rate was calculated for the whole country, considering the fact that Tunisia is a homogeneous spatial entity. But this consideration masks the strong regional disparities in terms of employment.

Figure 3: The unemployment rate in Tunisia until 2011 at the global level



Until then, the regional dimensions have been badly neglected in Tunisia. Today, however, the spatial dimension is at the centre of every statistical analysis around the world.

In our case, we seek to put the territory back at the centre of development strategies before talking about inclusive growth in the Tunisian context and to subsequently fight against spatial inequalities and stimulate social equity.

Part II

Data and methodology

Nine years after the revolution, this study aims to schematize the new reforms areas while putting the light on the situation of unemployment in Tunisia. The revolution is the lesson of the change of level of analysis for Tunisia. In other words, the integration of new spatial scales in the majority of economic and political studies seems to be an essential element. An exploratory analysis of spatial data can help improve political and scientific debate to better find solid and sustainable solutions.

1- Data and sources

In this perspective, to start with, we rely on employment, as the key to inclusive growth and the engine of the Tunisian revolution. It is the factual driving force for a dignified life in the face of social exclusion. This concern for employment can accompany a reduction of inequalities in various forms through the willingness to create employment opportunities and to strengthen regional capacities.

The concept of inclusive growth, however, allows us to question the indicators of poverty, employment and social exclusion associated with it (Bérenger and Vérez 2016).

In order to do so, we made use of other socio-economic data that are likely to analyze the reality of Tunisia and to judge the current situation of regional development.

Data on employment, poverty, unemployment, illiteracy and the activity rate were extracted directly from the National Institute of Statistics (INS) in 2015. These data can be downloaded from the website of: www.ins.tn.

Concerning the data on the regional development indicator in 2015, they come from the Tunisian Institute of Competitiveness and Quantitative Studies (ITCEQ). "The Regional Development Index (RDI) is the simple average of 17 variables referring to four domains: "wealth and employment", "knowledge", "health and population" and "justice and equity". On a scale from 0 to 1 (very poor to excellent), the closer the RDI is to 1, the higher the level of development (Boussida, Rabah, and Salhine 2018).

The regional division chosen is that of the 24 Tunisian regions (i.e. 24 governorates). In the example understudy, regions are defined as governorates (WILAYA), but smaller (delegations) or larger spatial units (The Capital Tunis, NE, NW, EC, CW, South) can also be used depending on the available data and the purpose of the analysis.

The data used in our article go back to the year 2015. The choice of this year is for the following reasons: it is a post-revolution date and it is the year following the General Census of Population and Housing (RGPH 2014). The table below clearly and correctly/ accurately describes our retained data.

Table 1: descriptive statistics

Variables	Year	Observations	Min	1st Qu.	Median	Mean	3rd Qu.	Max
IRD	2015	24	0.1600	0.3900	0.5000	0.4783	0.5625	0.7600
	2015	24	10.10	14.97	18.45	20.42	27.10	32.90
Rates illiteracy								
Poverty rate global	2015	24	3.50	11.15	16.90	17.70	22.57	34.90
Labor force participation rate	2015	24	37.00	41.73	43.60	45.10	49.45	53.10
Unemployment rate	2015	24	9.30	12.80	16.10	16.58	18.88	26.20

2- Exploratory Spatial Data Analysis (ESDA)

In some cases, we need modern and sophisticated techniques to establish a comparative study at the spatial level. Prioritizing and analyzing regional reports for several indicators require the use of *Exploratory Spatial Data Analysis (ESDA)* techniques.

Indeed, ESDA is a very simple tool that allows us to visualize and map geospatial data. Cartography renders spatial information and gives keys to read in order to make a typology or a classification. In addition, this method is very useful for studies of this kind. It is omnipresent today in the field of spatial and regional economics and especially in studies on regional disparities.

Most empirical studies concerning the EU use this method as well as other studies concerning developing countries such as Tunisia. (Amara, Kriaa, and Montacer 2010) examines the spatial configuration of the urban centrality of Greater Tunis to estimate employment and population density in 1994 and 2004. It is a spatial study to detect the spatial centre of employment and to analyze employment gaps between urban areas. At this stage, the author uses the Exploratory Spatial Data Analysis (ESDA) method to visualize and analyze the dynamics of the centrality of the Tunisian metropolis. In turn, (Karray and Driss 2009) measured the interactions between neighboring regions in order to identify the agglomeration of industrial activities using the tools of exploratory spatial data analysis. According to them, the ESDA represents a set of statistics for determining different forms of spatial heterogeneity through measures of global and local spatial autocorrelation such as the global and local Moran statistic. These statistics allow us to visualize the distribution of such a value and to measure the spatial autocorrelation as well as the spatial heterogeneity over a unit of the studied territory (Anselin 1998) (Le Gallo 2002) (Dudás et al. 2017).

A- Spatial weighting matrix

The spatial weighting matrix \mathbf{W} is the essential tool for modeling the spatial interdependence between regions. It is a pattern of connections between neighboring regions of a purely geographical nature. The elements w_{ij} indicate how region i is spatially connected to region j , while the diagonal elements w_{ii} of the matrix \mathbf{W} are conventionally zero. Indeed, the standardized \mathbf{W} matrix allows to define a spatial dimension for the studied variable \mathbf{y} . The $\mathbf{W}\mathbf{y}$ variable is a spatially lagged variable that provides for each region i the weighted average of the values associated with neighboring regions (Ertur and Koch 2005).

B- Moran's Statistics I

Moran's I statistic is a global statistic that does not allow us to assess the local structure of spatial autocorrelation. Moran's index masks atypical locations or pockets of local non-stationary.

$$I_t = \frac{n}{S_0} \cdot \frac{Z_t' W Z_t}{Z_t' Z_t}$$

The expected value of I is: $E(I) = -\frac{1}{n-1}$

The expected value of I allows us to identify the nature of global self-correlation. There are two possible cases:

- I is greater than $E(I)$ = an overall positive spatial autocorrelation.
- I is less than $E(I)$ = a globally negative spatial autocorrelation.

C- Getis-Ord statistics

This statistic allows us to distinguish the spatial concentration between high and low values. The G_i index (d) is useful for detecting local pockets of dependency that can be masked by the global statistic presented above.

Thus, it is possible to visualize the auto-correlation within a region and to see the causes of such an unbalanced situation of one region in relation to another. The local Moran index is also known as the LISA (Anselin 1996).

According to (Ord and Getis 1995), this statistic is written for each region i and year t as follows:

$$G_{i,t}(d) = \frac{\sum_{j \neq i} w_{ij}(d) x_{j,t}}{\sum_{j \neq i} x_{j,t}}$$

Where x is positive and $w_{ij}(d)$ are the elements of a matrix of binary spatial weights. For any region i and all of her neighbors, the weights w_{ij} of the contiguity matrix \mathbf{W} are therefore defined as follows:

$$w_{ij} = \begin{cases} 1 & \text{pour } j \in \mathfrak{N}. \\ 0 & \text{pour } j \notin \mathfrak{N}. \\ 0 & \text{pour } j = i. \end{cases}$$

These are four possible situations of local spatial autocorrelation that can be summarized in this excerpt³.

³ To go further: Oliveau Sébastien, "Spatial autocorrelation: lessons from the change of scale", L'Espace

- Individuals where the variable under study has a strong value in a similar neighborhood (positive spatial autocorrelation and high-high index value), a situation summarized as "plus-plus" (high-high).
- Individuals where the variable under study has a low value in a similar neighborhood (positive spatial autocorrelation and low index value), a situation summarized as "low- low".
- Individuals where the variable under study has a strong value in a neighborhood that does not resemble it (negative spatial autocorrelation and high index value), a situation summarized as "high-low".
- Individuals where the variable under study has a low value in a neighborhood that does not resemble it (negative spatial autocorrelation and low index value), a situation summarized as "minus-plus" (low-high).

Part III

Empirical results and discussion

After defining the 6th-order neighborhood matrix in our case, the analysis of global spatial autocorrelation of data using the Moran index shows a high concentration of spatially similar values. Thus, Table 2 presents the results of the Moran Index calculation for each variable to identify their degree of correlation.

Table 2: The global Moran index

VARIABLES	2015
Unemployment rate	0.437784
Labor force participation rate	0.442418
Poverty rate	0.316776
RDI	0.433453

The coefficients are positive and relatively high. The activity rate represents the highest value overall, i.e. I' Moran equal to 0.442418 in 2015. The activity rate assigns 44% of the variance to values in the neighborhood. This shows that a region's labor force participation rate is highly correlated with other regions globally.

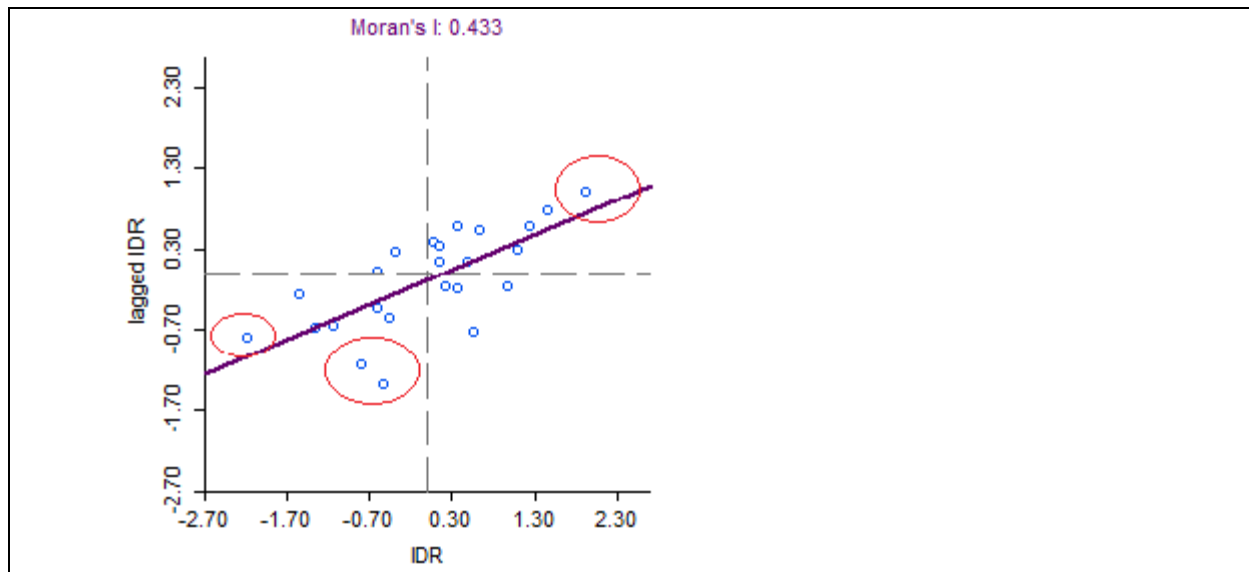
On the other hand, Moran's (I) of poverty rate represents a low value that remains positive. This means that there is a positive spatial autocorrelation between neighboring governorates. Thus, the neighborhood effect plays a role in the similar pattern of observed values in each region. This can also be explained by the fact that each governorate is surrounded by governorates with similar values.

Concerning the regional development index (RDI), a strong positive spatial self-correlation can also be noted and the index (I) illustrates a high value of self-correlation equal to 43% between the 24 Tunisian governorates. In addition, in Figure 1, there is a very high concentration of value but there are a few points that are far from the centre of the cloud. This can be explained by the highest and lowest values of the variable in question. Moreover, this distribution explains that, overall, the spatial autocorrelation is weak between these spatial entities and the neighborhood effect plays no role.

géographique, 1/2010 (Vol. 39), pp. 51-64.

The first two types of associations (H-H and L-L) indicate the presence of positive spatial autocorrelation while the last two types of associations (H-L and L-H) indicate the presence of negative spatial autocorrelation. (Driss and karray 2013).

Figure 4: I Moran's global RDI



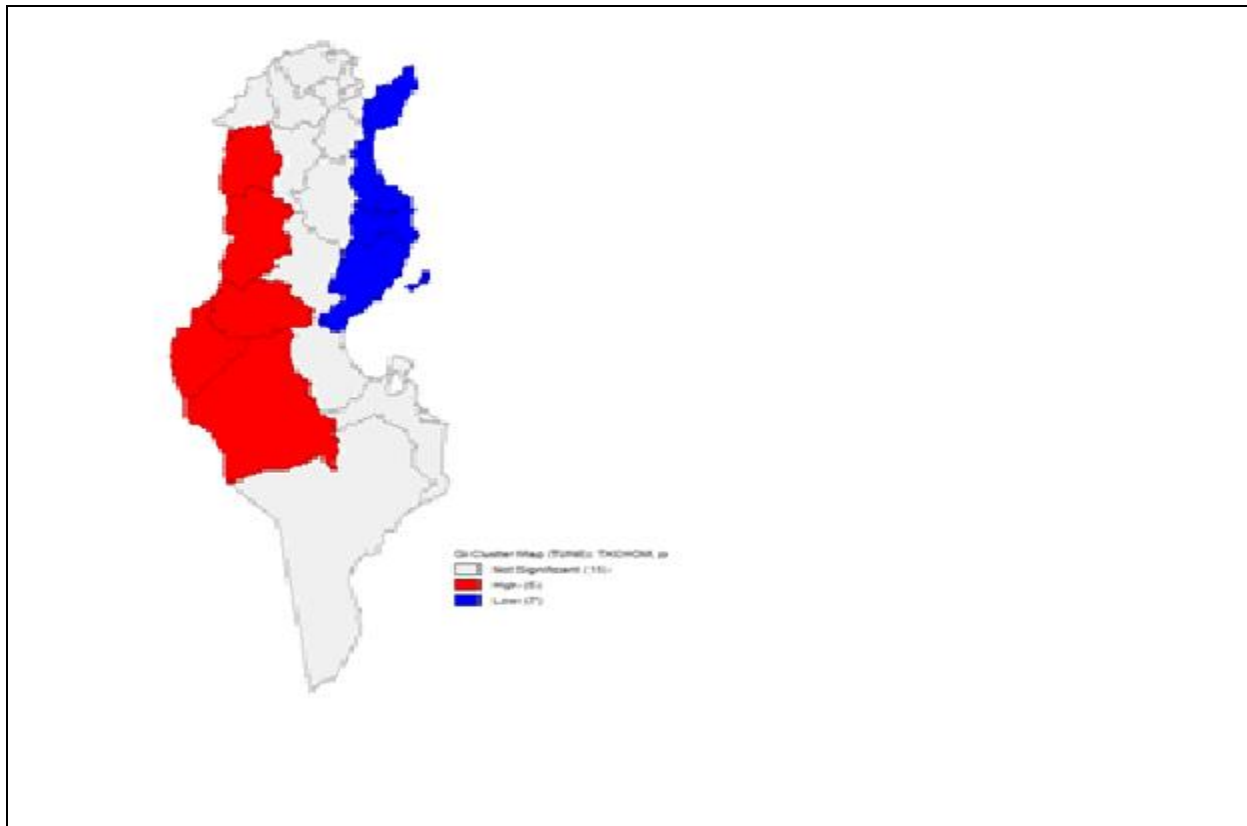
To argue our results, we go deeper into the analysis of spatial autocorrelation based on a local analysis of the variables. So, to visualize the spatial interactions of these variables at the local level, we will study the local spatial autocorrelation of the Moran index. In contrast to global measures, Getis-Ord statistics are local statistics highlighting valuable local groupings. They allow the study of spatial significance and comparing the values of the variable in cartographic form results in four classes of individuals.

In the Tunisian context, when one wants to focus on inclusive growth, an exhaustive list of data can be used, but in this passage we try to use a few variables that seem important to us as a first step towards stimulating social cohesion and social equity.

To illustrate our thinking, special attention will initially be paid to the unemployment rate in order to describe the situation in Tunisia.

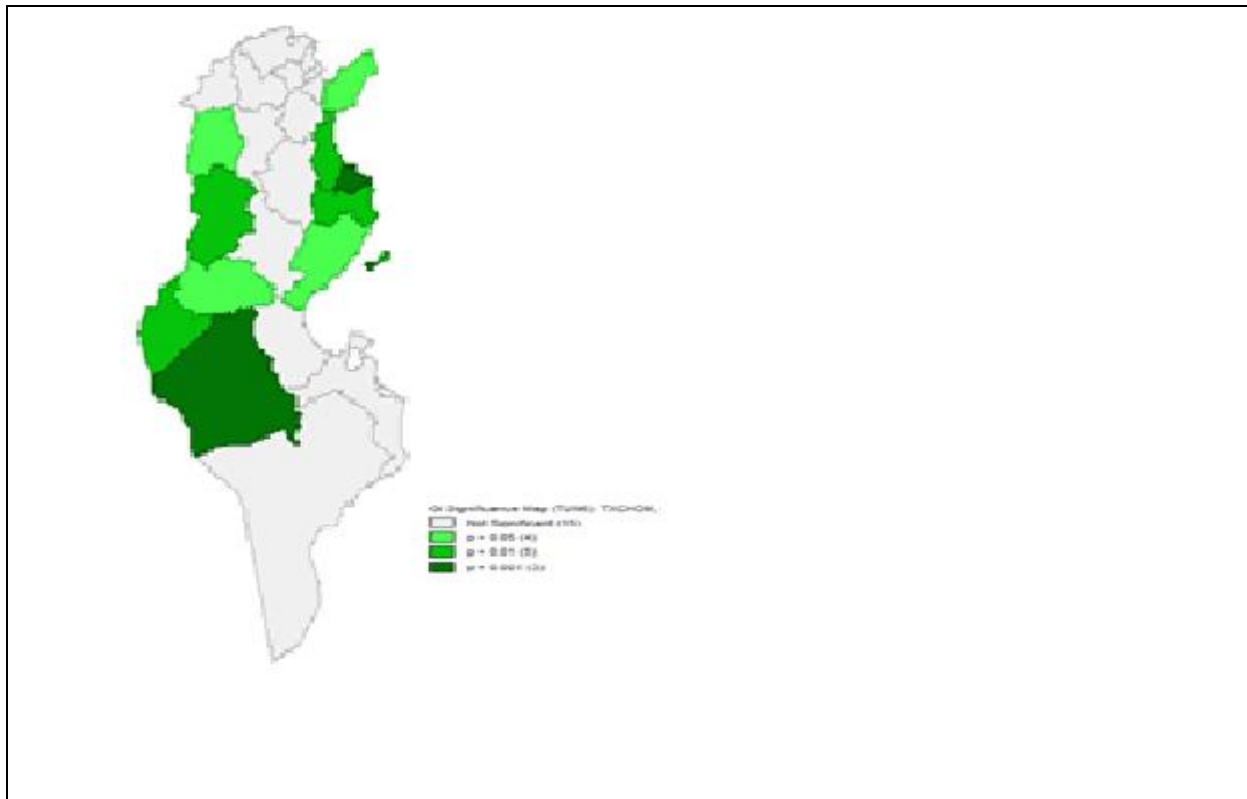
Map 1 below shows a positive spatial autocorrelation of unemployment in the interior regions. The regions have high unemployment in a similar neighborhood.

Figure 5: The local distribution of unemployment rates in 2015



This map shows the spatial association of unemployment rates at the local level. This spatial grouping also shows a very serious cleavage between a coastline with a low unemployment rate and an interior where this phenomenon is increasingly serious. There are 5 regions where the variable under study has a high value in a similar neighborhood (positive spatial autocorrelation and high-high index value), a situation summarized as "plus-plus" (high-high). In this case, the regions are, according to our studied sample, the following: we find Gafsa with a rate of 26.8% is at the top of the list, then Kasserine with a rate of 22.7% and Kebili 21% and finally, Kef with 19.1%, and Tozeur with 15.5%.

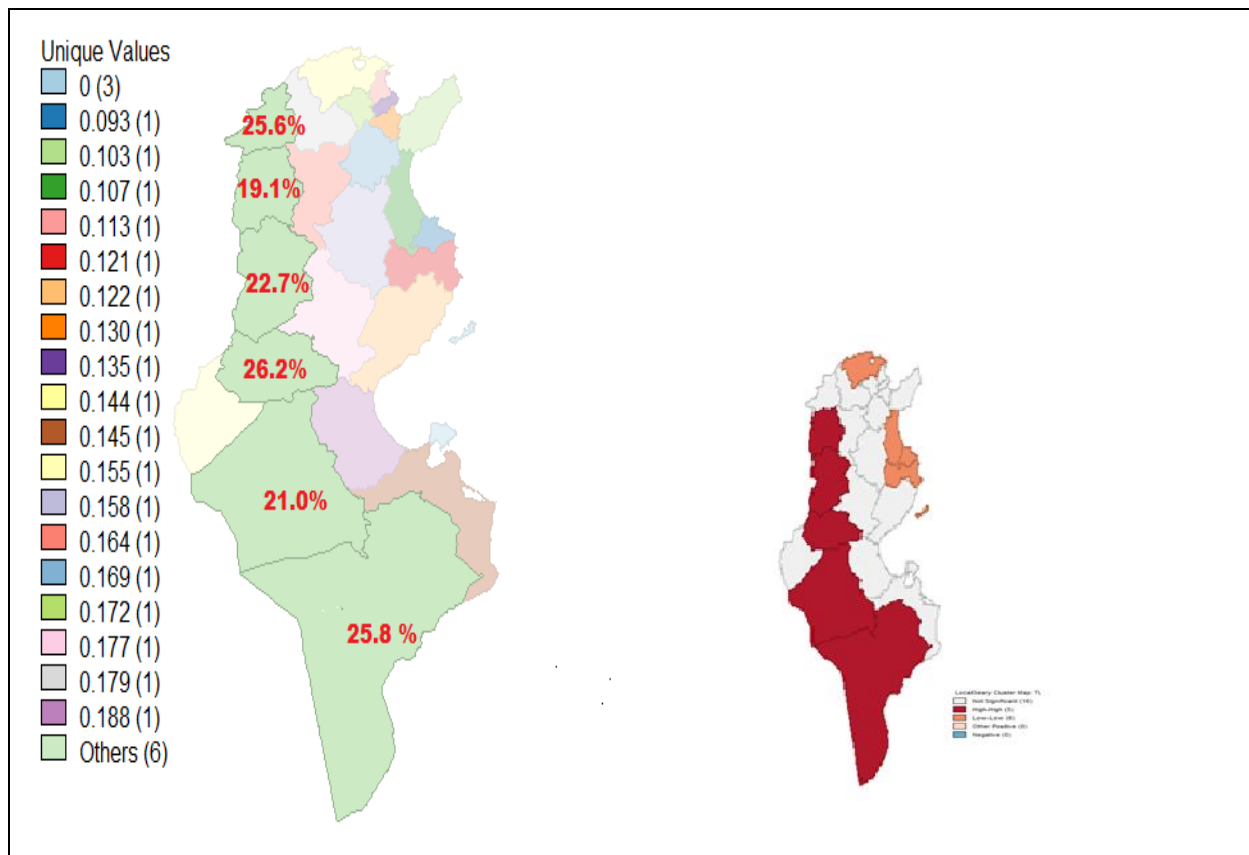
Figure 6: The spatial significance of unemployment rates



This cartographic analysis is very logical and affirms the regional cleavage that exists between marginalized regions and active and developed regions in Tunisia. Thus, mapping allows us to deduce atypical and needy areas. This allows, in the future, orienting strategies and the spatial targeting of reforms likely to promote inclusive growth in Tunisia. Moreover, we need to take a fresh and factual look at regional and local development.

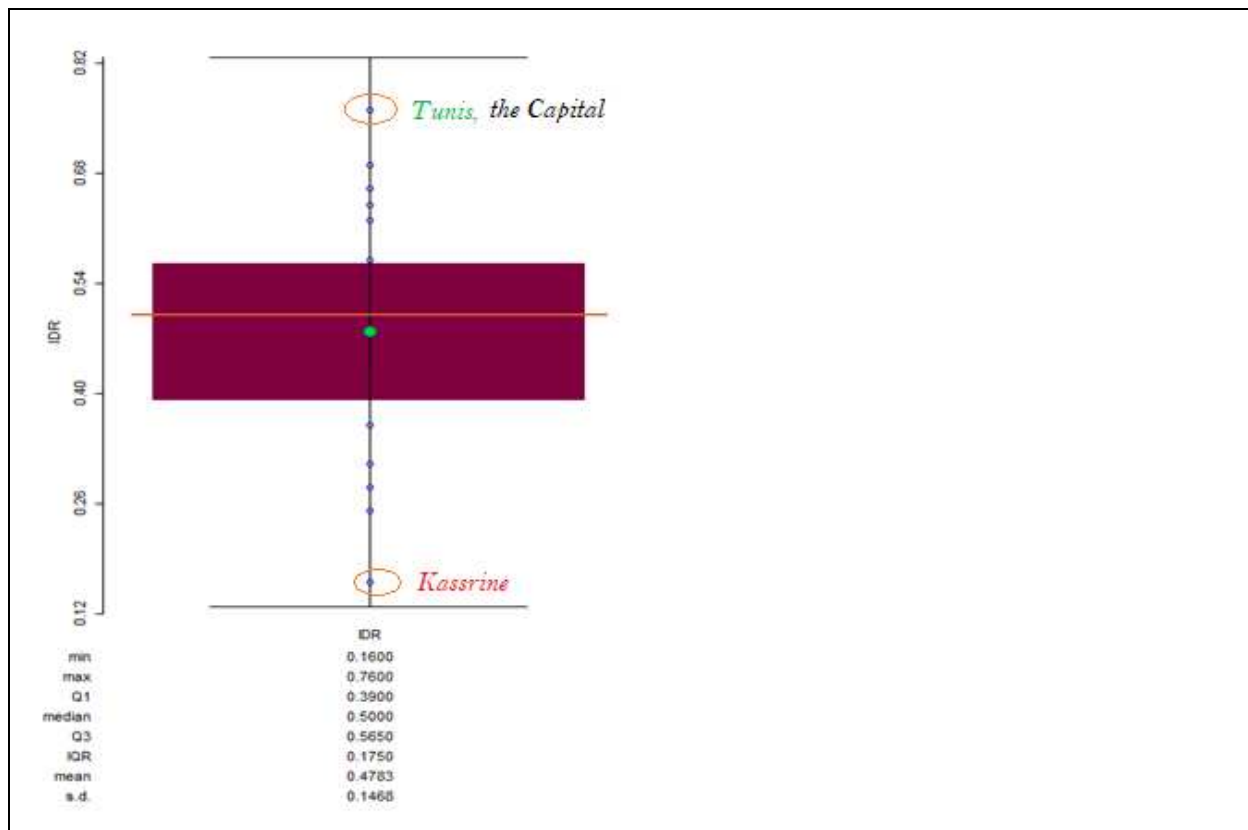
ESDA is often a great tool for exploration because it allows data to be specialized and cross-referenced. In fact, this efficient technique also allows us to question space and to convey useful interpretations based on cartography of phenomena.

Figure 7: The distribution of unemployment rates above 19%



In this map, we go beyond simply reading the spatial distribution of unemployment. This concentration represents a sign of exclusion of part of the population in Tunisia. In general, these are the most disadvantaged and isolated regions, but the real paradox here is that we can mention that most of these regions participate strongly in the economic life of the country. For example, Gafsa has the highest local unemployment rate of 26.2%, but is the country's largest phosphate producer. Similarly, Kébili and Tataouine participate in the national GDP respectively through the production of dates and through oil production. However, despite their wealth, these regions face a harsh reality: their natural resources do not bring them economic prosperity.

Figure 8: The statistical distribution of the RDI in 2015



Regional disparities in Tunisia are still profound in terms of regional development. Figure 5 is very sufficient to present the range of regional inequalities between the 24 Tunisian governorates with a maximum value for the capital, Tunis with 76% and a minimum value of 16% in Kassrine. The domination of the capital is very acceptable since it is the metropolis and the center of the country since the history of Tunisia. Here, what worries us is the situation of the governorate of Kassrine and their neighbors at the bottom of the figure and especially with a value very close to 0. The problem of these underdeveloped and below-average regions invites us each time to ask ourselves about the desired development model. Moreover, this passage is not limited to the visualization of variables at the local level and their uneven distribution, but also offers spatial targeting. The latter makes it possible to highlight the various priority regions in terms of development from a new and more innovative angle.

At this stage, the existence of spatial heterogeneity in Tunisia may play a role in favor of these regions provided that a review and redefinition of the reforms is established. Today, Tunisia needs a new geographical reading of its employment reforms. Even here, unemployment is a phenomenon that is evolving throughout the world.

Similarly, it is dispensable for the State to offer each lagging region its own conditions of prosperity. Each region must be considered as an ideal territory to live, work and innovate for sustainable and solidarity-based development. The fight against unemployment must be the objective of each region or spatial entity independently.

In order to achieve an area with more or less zero unemployment, it is necessary to re-examine the local economic development model. By such doing, new solutions will respond to

desirable lifestyles, promote living together, energy transition and local production and consumption.

For Tunisia, this is an ideal opportunity to bring out new development perspectives and to inspire a spatial planning that distinguishes the coastal zone from the peripheral regions. This new approach focuses more on marginalized regions. It should consider each region as a pilot project or strategic site. This is the territorial principle of each reform in order to answer the fundamental question of socio-spatial justice.

Conclusion

The regional context conducted in this article allowed us to describe the employment situation in further detail. We have taken both an exploratory and analytical approach to take a fresh and factual look at regional development and at the kind of regional policy responses required for our country after 2011. Indeed, this framework helps us to reframe the regional reality of employment and, more importantly, its implications in terms of unemployment and regional development.

The results obtained by the Exploratory Spatial Data Analysis (ESDA) method have shown that employment disparities have contradictory effects on inclusive growth in Tunisia. This argues that employment is a key factor in achieving the aspirations of inclusive growth. Hence the aim of this study is not to present a geographical distribution of variables but to explain the role of the spatial effect on the distribution of socio-economic indicators and to analyze global and local spatial autocorrelation.

Unfortunately, after all this time, there is still no serious political debate on the original issues of unemployment and employment. These are only either promises or fragile jobs. Tunisia has experienced economic and social recessions. There is a need to develop new intelligent models of development and job creation that place greater emphasis on the territorial approach and inclusive development. Similarly, the role of young people in political life must be concretized and initiatives that serve as levers for inclusive growth in Tunisia must be encouraged. So, targeting populations and objectives is necessary to avoid the dysfunction of better strategies that can increase economic and social returns by subsequently promoting the ambitions of inclusive growth within a developing country (Bérenger and Vézé 2016). Finally, we need decision-makers with the courage to impose respect for the law and carry out in-depth reforms in our country (education system, health system, transport, administration, public enterprises, etc.)..... So, for a more promising future, there is an urgent need to plan priority strategies at the regional level to ensure inclusive growth and well-being.

List of abbreviations:

Exploratory Spatial Data Analysis: (ESDA)
Tunisian Institute of Competitiveness and Quantitative Studies (ITCEQ)
National Institute of Statistics (INS)
North East (NE)
North West (NW)
East Center (EC)
Center West (CW)
European Union (EU)
The regional development index (RDI)
Gross domestic product (GDP)

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