



## PRODUCTIVE SPECIALIZATION AND REGIONAL DEVELOPMENT IN PORTUGAL AT THE NUTS III LEVEL

Francisco Diniz\*, Teresa Sequeira

Centro de Estudos Transdisciplinares para o Desenvolvimento (CETRAD),  
Departamento de Economia, Sociologia e Gestão  
da Universidade de Trás-os-Montes e Alto Douro (UTAD),  
Avenida Almeida Lucena, 1, 5000-660, Vila Real  
e-mail: [fdiniz@utad.pt](mailto:fdiniz@utad.pt)

\* Corresponding author

### Biographical Notes

**Francisco Diniz** (1954) is a researcher at Centre of Transdisciplinary Development Studies (CETRAD) and a senior lecturer at Department of Economics Sociology and Management (DESG) of the University of Trás-os-Montes and Alto Douro (UTAD). Since 2009 is an Associate Professor with Habilitation in the field of Growth and Development Economics with a PhD in Economics. Publications: 3 books; 7 chapters in books; 20 articles in national and international scientific journals. Participation as team leader of Portuguese team in 4 international research projects. Participation in several national and international congresses.

**Teresa Sequeira** (1964) is a researcher at Centre of Transdisciplinary Development Studies (CETRAD) and a lecturer at Department of Economics Sociology and Management (DESG) of the University of Trás-os-Montes and Alto Douro (UTAD). She is a PhD in Economics. Publications: 1 chapter in book; 4 articles in national and 3 in international scientific journals.

### Abstract

The purpose of this paper is to analyse how the specialization of Portuguese productive structures has evolved between 1995 and 2004, using specialization indicators, namely localization quotient estimation, to assess both the relative degree of concentration of a given activity in a certain area and the specialization coefficient, that helps characterize a region's economy according to its degree of specialization. The Theil Index, together with the diversification/specialization degree of each region was also taken into consideration in this analysis. Reference variables for specialization analysis purposes were Gross Value Added and Employment in an attempt to compare differences observed with productivities, which, in turn, are related to purchasing power evolution within each territorial unit. The main aim of this study was, then, a thorough research into the time-spatial relationship between specialization, productivity and development.

**JEL classification:** C43, R12.

**Key words:** *Productive specialisation index and regional development*

## **1. Introduction**

Productive specialization has always been at the heart of economic and regional development studies and recently produced regional science literature can provide some very good examples of it. AKGÜNGÖR, S; Falcioğlu (2005) addressed the question of the relationship between Turkey's transforming industry regional specialization patterns and European integration; MICHAELS, G. (2006) elaborated on the consequences of a resources based specialization especially when it lasts for a long period; EZCURRA, R.; GIL C; PASCUALY P. (2004,) wrote on regional integration in the E.U.; Traistaru, I ; Iara, A (2002) worked on regional integration and industrial localization in central and eastern Europe countries within a project financed by E.U. Phare Program.

With recourse to specialization indicators, such as the localization quotient, which allows us to assess the relative degree of concentration of a given activity in a given region; the specialization coefficient, which enables the characterization of a region's economy according to its higher or lesser specialization; and finally, the Theil Index, together with the diversification/specialization extent of each region, it was possible to analyse the specialization evolution of Portuguese productive tissue between 1995 and 2004. The reference variables chosen were Gross Value Added and Employment, and the differences found were compared with productivities, which in turn were related to purchasing power evolution within each territorial unit. The main purpose of this study was, thus, to go deeper into the spatial and time relationship between specialization, productivity and development.

## **2. Methodological Aspects**

### **2.1. Variables analysed**

Productive specialization indicators used in this study focussed on two variables: - GVA and Employment. The time span considered was the period between 1995 and 2004. The territorial unit comprised Portuguese NUTS III and the reference unit was NUTS I, that is, the whole of the national territory.

Data were collected at the INE (Portuguese National Statistics Institute) site regarding the period referred. Concentration/distribution of economic activities was analysed based on data for GVA and Employment concerning primary, secondary and tertiary sectors, respectively.

## 2.2. Productive Specialization indexes

Specialization indicators are statistic analysis measures which allow us to infer thesis and conclusions about the productive structure specialization of each territorial unit at two levels. On the one hand they measure each territorial unit specialization compared against a reference model, both in global terms and for each of the activity sectors taken into consideration. In this case we are before relative specialization indicators, of which both the localization quotient and the specialization coefficient are two examples. On the other hand, it is possible to build absolute specialization indicators for each territorial unit, which will deal with characteristics revealed by the variable sectoral distribution in that territorial unit.

### Localization Quotient

This indicator (LQ) is a localization measure, in the sense that it allows us to assess the relative concentration degree of a given activity (k) in a given region (i). Analytically,  $QL_{ik} = (x_{ik}/x_j) / (x_k/x)$  where the numerator measures the concentration of the gross value added of region i in sector k and the denominator measures the concentration of the reference region's gross value added in sector k. The reference basis is the unit. Thus:

- ✓  $QL_{ik} < 1$  – means that sector k in region i is not very significant, and that the region is not particularly specialized in sector k;
- ✓  $QL_{ik} = 1$  – in this case the relative importance of sector k in region i equals its importance in the reference region;
- ✓  $QL_{ik} > 1$  – means that sector k in region i plays an important role, and that the region is relatively specialized in sector k.

Localization quotients are useful tools to characterize regions internally and to compare them both among themselves and to the reference territorial unit. Additionally, the analysis of their evolution in time, namely by descriptive statistical measures, allows us to approach the regions' internal dynamics as well as their inter-relationships, DELGADO, A.P; GODINHO, I. M. (2005).

### Specialization Coefficient

Determining the region's specialization coefficient ( $E_i$ ) requires calculating its unemployment percentage in each sector,  $x_{ik}/x_i$ , and the same percentage relative to pattern  $x_k/x$ , determined by the following expression:  $CE_i = \sum_{k=1}^k [ | (x_{ik}/x_i) - (x_k/x) | ] / 2$ .

The index allows us to characterize the region's economy in terms of its higher or lower specialization regarding its productive structure when compared to the pattern's with a variation in the interval  $[0,1]$ . If  $CE_i = 0$ , there is no specialization in region  $i$  compared to the pattern. The nearer the CE value is to 1 the higher the specialization of region  $i$  compared to the reference pattern. DELGADO, A.P; GODINHO, I. M. (2005).

### Theil Index

It is a gross indicator that allows us to measure the specialization index of a given region. The degree of specialization/diversification depends on sectoral characteristics of the area under analysis. This indicator's limits vary between maximum specialization situations and total diversification situations (log of number of branches retained for analysis).

$$E_i = \sum_{k=1}^k [ (x_{ik}/x_i) \log (x_{ik}/x_i) ] E_i \in [0, \log k]$$

This indicator's limits correspond to two extreme situations: maximum specialization (limit inferior) and maximum diversification (limit superior).

The minimum value occurs when in spatial unit  $i$ , the value assumed by variable  $x$  depends solely on a single activity, in which case that territorial unit shows a maximum specialization. When activity  $m$  becomes the only present in spatial unit  $I$ , then,  $x_{im}/x_j = 1$  and  $x_{ik}/x_j = 0$  for the whole of  $k \neq m$ , therefore  $E_i = 0$ .

When activity sectors are evenly distributed spatial unit  $i$  presents a maximum diversification of its productive structure.

$$E_i = \sum_{k=1}^k (1/k) \log (1/k) \Leftrightarrow E_i = \sum_{k=1}^k (1/k) (-\log k) \Leftrightarrow E_i = - \sum_{k=1}^k (1/k) \log k \Leftrightarrow E_i = \log k.$$

The result ( $E_i$ ) may be normalized through a usual transformation for these cases,  $E_i' = (\log k - E_i) / \log k$ , varying between 0 and 1, maximum diversification and maximum specialization, respectively. DELGADO, A.P; GODINHO, I. M. (2005).

### **2.3. Multiple Linear Regression**

In order to establish a relationship between development, productivity and regional specialization a multiple linear regression is also performed using SPSS statistical software. To explain development we looked for an indicator available in official statistical sources, in this case the INE - Instituto Nacional de Estatística (National Statistics Institute) that might assume the role of proxy. So we chose the per capita Purchasing Power Indicator (pcPPI) at NUT III level, an index which compares purchasing power in per capita terms, with the national reference value in all of the different territorial units.

As explaining variables we selected productivity, measured by the GVA/ posts ratio. As regards specialization, of the various indicators considered, Localization Quotient (LQ) concerning sectors I, II and III produced the best results. Because of an obvious multicollinearity problem and in view of the results obtained we decided to eliminate the secondary sector.

The data presented refer to 2004, the most recent year that was possible to analyse.

## **3. Result Analysis**

Further considerations are based on the analysis of results obtained by calculating the indexes presented before. NUTS II and NUTS III were chosen as the territorial units to be studied and were taken in relation to the whole of the national territory for the period between 1995 and 2004.

### **3.1 Localization Quotient (L.Q)**

#### **Employment**

##### **- Primary Sector**

From 1995 to 2004 there was a greater relative importance of the primary sector in NUTS II in the Centre, in Alentejo and in Madeira and Azores Autonomic Regions. In the North this sector lost some of its importance between 2000 and 2002. In the Algarve, however, this loss has been accentuated from 2000 on. Lisboa e Vale do Tejo presents a lower relative importance than the reference territorial unit.

Minho – Lima, Douro and Alto Trás-os-Montes are the northern NUTS III which may be considered as rural due to the concentration of primary sector activities once the whole of the national territory is taken as reference.

In the Centre and in Alentejo in all NUTS III and in almost every year, respectively, rurality becomes the main feature when the variable employment is considered.

In NUTS III Lisboa and Vale do Tejo only NUTS III Grande Lisboa and Península de Setúbal do not follow this tendency and escape rurality.

#### - Secondary Sector

During the whole of the period under survey the secondary sector proved to be the most important in the northern region, especially in Ave, Grande Porto e Tâmega, Entre Douro e Vouga and Cávado.

In the Centre, from 2000 on there has been a slight loss of concentration of activities related to this sector, although their relative importance has increased. The regions with a bigger employment concentration in the secondary sector are Baixo Vouga, Cova da Beira, Pinhal Litoral and Pinhal Interior Norte.

NUTS III West and Médio Tejo, in Lisboa e Vale do Tejo Region, are the only territorial spaces in this region which showed specialization in industry between 1995 and 1999; from 2000, however, this sector has been losing its relative importance. Between 1999 and 2001 Península de Setúbal also showed a productive specialization in the secondary sector with a Localization Quotient value higher than the unit and with values close to the unit for the other years of the period under survey.

In all the other regions the secondary sector's relative importance is less than in the country when the variable considered is employment.

#### - Tertiary Sector

This activity sector is more concentrated in the South – Algarve, Alentejo, and Lisboa e Vale do Tejo.

In the North, only in Grande Porto is it more important than in the rest of the country. In the Centre, this situation occurs only in Baixo Mondego. Despite the rural characteristics of the region, there is a strong tendency for tertiarizing the economy in all NUTS III in Alentejo.

## **GVA**

### **- Primary Sector**

NUTS II North, Lisboa e Vale do Tejo and Madeira Autonomic Region present the lowest concentration of GVA in the primary sector. In all of the other NUTS II it is this economic activity sector which contributes the most to the formation of Value Added. In Alentejo and Açores Autonomic Region the localization quotient hovers around 4, and reached 4,37 and 4.06, respectively, in 2004.

When NUTS II are compared to the national whole, in the Northern Region localization quotient shows significant values ( $QL \geq 1$ ) but very close to 1 in Minho - Lima and Tâmega and often over 3 in Alto Trás-os-Montes and Douro for the period considered. In the latter specialization in the primary sector has been losing importance since the sector's LQ in 1995 was 5.59 and went down to 2.78 in 2004. In Alto Trás-os-Montes the sector's relative importance has been more or less constant or has even become somewhat strengthened.

In the Centre, Baixo Vouga, Baixo Mondego and Pinhal Litoral are no longer specialized in the primary sector since their localization quotient is less than 1. In the remaining NUTS III of this region primary sector is the dominating contributor to GVA.

In Lisboa e Vale do Tejo NUTS III Grande Lisboa and Península de Setúbal are the only ones where the primary sector has no relevance. Localization quotient in Grande Lisboa is below 5%. In Oeste and Lezíria do Tejo, though, the primary sector is highly significant and in Médio Tejo LQ is close to 1 during the whole period and reaches over this value in 2004.

Although tourism is the most widely spread activity in the Algarve, still the primary sector contributes more to GVA than the secondary sector.

#### - Secondary Sector

The North and the Centre are the two regions where the secondary sector becomes more relevant when GVA is considered.

In the North the secondary sector is quite relevant in all of the NUTS III but Douro and Alto Trás-os-Montes.

In the Centre the sector loses importance only in Beira Interior Norte. Although occasionally during some periods the sector may have held some importance, most of the time it was not so in Baixo Mondego and in Pinhal Interior Sul, especially soon after 1995.

In Lisboa e Vale do Tejo the secondary sector has no significance only in Grande Lisboa.

Finally, in Alentejo this sector becomes dominant in Alentejo Litoral.

#### - Tertiary Sector

As regards GVA Lisboa e Vale do Tejo, Algarve, Madeira Autonomic Region and Açores Autonomic Region show the greatest concentration of the tertiary sector relative to the rest of the country.

In the North, only in Grande Porto does the tertiary sector have a localization quotient higher than 1. In the Centre this value is exceeded only by Baixo Mondego during most of the period examined. As for Lisboa e Vale do Tejo, again only Grande Lisboa may be described as a service providing centre.

### **3.2. Specialization Coefficient (SC)**

We should bear in mind that  $SC_i \in [0,1]$ . In the case of the limit inferior both the territorial unit  $i$  and the reference space have identical specialization profiles; therefore that territorial unit has no relative specialization. The higher the specialization coefficient (closer to 1), the more the territorial unit  $i$  has a specialized productive structure compared to the productive structure of the reference space, since the specialization profile of territorial unit  $i$  is very different from what the reference territorial space shows.



Precisely because we are dealing with a relative specialization measure a low specialization coefficient does not necessarily entail a diversification of the regional productive structure but rather a proximity between specialization profiles both of the territorial unit  $i$  and of the reference space.

When we analyse the results obtained through calculating the specialization coefficient for Employment and GVA, the low values found for both NUTS II and III, respectively, compared to the country's, and in view of what has been said before, do not lead us to conclude that there is a diversification of the different territorial units' productive structure compared to the reference territorial unit's – the country - only that there is a proximity between the NUTS' productive specialization profiles and the country's.

As regards Employment, LC values do not reach 20% in the case of NUTS II and 40% in the case of NUTS III. When the variable in question is GVA these values are even lower: 10% for NUTS II and 30% for NUTS III. See annexes.

### **3.3. Theil Index (Tlik)**

The results presented are based on Theil Index normalization as referred in the methodology.

From the table that follows it is possible to conclude that when we consider the variable employment, NUTS II territorial units show a minimum specialization level compared to the country's.

Lisboa e Vale do Tejo and Algarve are two regions where there has been some specialization, a tendency that has occurred in Madeira Autonomic Region only since last year.

When the variable in question is GVA, index values rise a little although they never reach 50%.

Lisboa e Vale do Tejo, Algarve and Madeira Autonomic Region are closer to a productive specialization situation.

Grande Porto and Grande Lisboa are the most specialized regions. In the Centre there is NUTS III Baixo Mondego to be considered since it has been gaining some importance in terms of its productive specialization.

### 3.4. Regression estimation

Based on INE data for the dependent variable (2005), on the Purchasing Power *per capita* Indicator (PPpcI04) for each NUT III (2004), and on such independent variables as productivity ratio (Prod\_04) and localization quotients estimated according to GVA both in the primary and the tertiary sector (LQGVAI\_04 and LQGVAlII\_04, respectively) we proceeded to do a regression estimation as referred in the methodology.

Statistical treatment allowed us to obtain the estimation results which are presented on the following table.

**Table 1.** Main estimation results

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	QLVAB_III_04, Prod_04, QLVAB_I_04 <sup>a</sup>	.	Enter

a. All requested variables entered.  
b. Dependent Variable: IpcPC04

Model Summary <sup>a</sup>										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,890 <sup>a</sup>	,793	,769	10,537578849636	,793	33,188	3	26	,000	1,392

a. Predictors: (Constant), QLVAB\_III\_04, Prod\_04, QLVAB\_I\_04  
b. Dependent Variable: IpcPC04

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11055,741	3	3685,247	33,188	,000 <sup>a</sup>
	Residual	2887,055	26	111,041		
	Total	13942,796	29			

a. Predictors: (Constant), QLVAB\_III\_04, Prod\_04, QLVAB\_I\_04  
b. Dependent Variable: IpcPC04

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-17,287	14,507		-1,192	,244
	Prod_04	2,343	,325	,664	7,212	,000
	QLVAB_I_04	-6,082	1,338	-,419	-4,546	,000
	QLVAB_III_04	69,284	14,795	,425	4,683	,000

a. Dependent Variable: IpcPC04

According to the estimated equation the independent variables present in the model<sup>1</sup>, that is average productivity and Localization Quotient in the primary and tertiary sectors at NUT III level, account for 77% of the total variation of average *per capita Purchasing Power* that year.

It also shows that while the degree of development measured by the *per capita Purchasing Power* varies much in the same way as the productivity ratio and the degree of specialization in the tertiary sector, in the primary sector it is exactly the opposite. Therefore the estimation reveals a negative influence on each NUT's development level of the degree of specialization.

This regression was validated by the results obtained and by the procedures suggested by Maroco (2003) and Pestana and Gageiro (2003); accordingly, we find we have met the necessary conditions to validate<sup>2</sup> this linear regression model.

#### 4. Final Remarks

This paper was motivated by a first approach to the time-space relationship between productive specialization on the one hand and productivity and the level of territorial development measured by the Purchasing Power Index on the other hand.

Both in GVA and Employment terms the territorial unit in question - Portugal – may be basically characterized as follows: - the **primary sector** predominates in the Interior North and in Alentejo and Açores Autonomic Region; - the **secondary sector** is relevant in the Northern coastline, in the Centre and in Península de Setúbal; finally, - the **tertiary sector** is more representative in Lisboa e Vale do Tejo, Algarve and in Madeira Autonomic Region. In the Northern region it is only relatively important in Grande Porto.

Attempts to relate productive activities localization with purchasing power and consequently with development levels have shown that productivity and the degree of specialization in the tertiary

---

<sup>1</sup> The data adjusted model is significant and tests to regression coefficients enable us to say that variable coefficients are statistically different from zero.

<sup>2</sup> Validation of a multiple linear regression model implies that the model be correctly specified, the independent variables do not present an exact linear relationship (multicollinearity), and that the errors have a normal distribution with zero mean, constant variance (homocedasticity) and no self-correlation ( $Cov u_i, u_j = 0$ , for  $i \neq j$ ) (Gujarati, 2000).

sector vary in the same way as purchasing power; however, there is a negative influence between specialization in the primary sector and the territorial development level.

Further research should do more than simply gathering data; it should specify and give full details of each productive activity sector in order to improve the quality of the analysis and obtain a better knowledge of the sectors.

## **Bibliography**

Akgunkor, S; Falcioğlu (2005), “European Integration and Regional Specialization Patterns in Turkey’s Manufacturing Industry”, Discussion Papers Series N°05-01 October 2005. Dokuz Eylül University, Faculty of Business, Department of Economics.

Delgado, A.P; Godinho, I. M. (1986), “Mesure de la Concentration et de la Spécialisation Industrielle Régionale – une Application au Portugal” – Trabalhos em curso n° 8, Porto FEP.

Delgado, A.P; Godinho, I. M. (2005), “Medidas de localização das actividades e de especialização regional”, *Compêndio de Economia Regional*, 2ª Edição José Costa Coordenador APDR, Coimbra. pp 713-732.

Diniz, F.; Sequeira, T. (2008), “Uma possível hierarquização através de um índice de desenvolvimento económico e social dos concelhos de Portugal continental”, *Interações – Revista Internacional de Desenvolvimento Local*, Vol. 9 (1), Janeiro a Junho de 2008, pp. 19-28.

Ezcurra, R., Gil C., Pascualy, P. (2004), Regional Specialization in the European Union D.T.2004/04, Department of Economics Universidad Publica de Navarra.

Gujarati, D. (2000), *Econometria Básica*, Terceira Edição, Pearson Education do Brasil. São Paulo.

Hoover, E. M., Giarrantani, F. (1999), *An Introduction to Regional Economics*, West Virginia University, The WEB Book of Regional Science (<http://www.rri.wvu.edu/WebBook>).

INE (2005), *Estudo sobre o Poder de Compra Concelhio, Número VI. 2004*. INE, Lisboa.

Isard, W. (1976), *Methods of Regional Analysis*, Cambridge, Massachusetts, M.I.T. Press.

Isard, W. et al.(1998), *Methods of Interregional and Regional Analysis*, Ashgate, Adershot.

Jayet, H. (1993), *Analyse Spatiale Quantitative. Une Introduction*, Economica, Paris.

Lopes, A. S. (1980), *Desenvolvimento Regional – Problemática, Teoria e Modelos*, Fundação Calouste Gulbenkian, Lisboa.

Maroco, João (2003), *Análise Estatística com utilização do SPSS*. 2ª Edição. Edições Sílabo, Lisboa.

Michaels, G. (2006), “The long-term consequences of regional specialization, Centre of Economic Performance”, Discussion Paper nº776 December, London School of Economics, London.

Pestana, Maria Helena; GAGEIRO, João Nunes (2003), *Análise de dados para as Ciências Sociais. A complementaridade do SPSS*, 3ª Edição Revista e aumentada, Edições Sílabo, Lisboa.

Polese, A.S. (1998), *Economia Regional e Urbana*. APDR, pp. 377, Coimbra.

Traistaru, I.; Iara, A. (2002), *European Integration, Regional Specialization and Location of Industrial Activity in Accession Countries: Data and Measurement*, Center for European Integration Studies, Rheinische Friedrich-Wilhelms-Universität Bonn Phare ACE Project P98-1117-R, Bonn.

Valeyre, A. (1993), “Mesures de dissemblance et d’Inégalité Inter-régionales : Principes, Formes et Propriétés” *Revue de Économie Régionales et Urbaine*, nº1, pp 17-53.

**Sites consulted:** [www.ine.pt](http://www.ine.pt) (until September 2008)

## NUTS II-NUT I - Localization Quotient (Lqik) - Employment -1995-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
<b>North</b>	I II III 1,04 1,34 0,80	I II III 1,34 0,80 1,05	I II III 1,06 1,35 0,80	I II III 1,03 1,35 0,80	I II III 1,01 1,36 0,81	I II III 1,34 0,80 0,98	I II III 1,34 0,81 0,97	I II III 1,34 0,81 1,01	I II III 1,32 0,82 1,05	I II III 1,32 0,82 1,05	I II III 1,33 0,82 1,05
<b>Centre</b>	I II III 1,59 1,03 0,86	I II III 1,62 1,03 0,85	I II III 1,62 1,03 0,85	I II III 1,62 1,03 0,86	I II III 1,61 1,04 0,87	I II III 2,07 0,96 0,77	I II III 2,09 0,95 0,78	I II III 2,11 0,96 0,78	I II III 2,07 0,97 0,78	I II III 2,06 0,98 0,79	I II III 2,06 0,98 0,79
<b>Lisboa e Vale do Tejo</b>	I II III 0,46 0,78 1,24	I II III 0,45 0,78 1,24	I II III 0,44 0,77 1,24	I II III 0,43 0,77 1,24	I II III 0,42 0,76 1,23	I II III 0,41 0,77 1,27	I II III 0,42 0,78 1,26	I II III 0,42 0,77 1,26	I II III 0,42 0,78 1,25	I II III 0,40 0,77 1,25	I II III 0,40 0,77 1,25
<b>Alentejo</b>	I II III 1,75 0,70 1,01	I II III 1,73 0,70 1,01	I II III 1,76 0,69 1,01	I II III 1,88 0,68 1,00	I II III 2,01 0,70 0,98	I II III 1,16 0,79 1,09	I II III 1,23 0,76 1,09	I II III 1,30 0,77 1,06	I II III 1,31 0,75 1,07	I II III 1,34 0,74 1,07	I II III 1,34 0,74 1,07
<b>Algarve</b>	I II III 1,28 0,48 1,23	I II III 1,25 0,49 1,23	I II III 1,19 0,51 1,23	I II III 1,28 0,52 1,21	I II III 1,34 0,52 1,20	I II III 0,75 0,61 1,29	I II III 0,69 0,62 1,29	I II III 0,77 0,64 1,26	I II III 0,67 0,73 1,22	I II III 0,58 0,74 1,22	I II III 0,58 0,74 1,22
<b>Açores A. R.</b>	I II III 2,01 0,64 0,98	I II III 1,97 0,63 0,99	I II III 2,04 0,63 0,98	I II III 2,32 0,65 0,94	I II III 2,51 0,64 0,92	I II III 1,46 0,72 1,06	I II III 1,27 0,75 1,08	I II III 1,22 0,77 1,08	I II III 1,09 0,77 1,10	I II III 1,09 0,78 1,09	I II III 1,09 0,78 1,09
<b>Madeira A. R.</b>	I II III 1,60 0,85 0,95	I II III 1,58 0,83 0,97	I II III 1,54 0,82 0,99	I II III 1,46 0,86 0,99	I II III 1,41 0,87 1,00	I II III 1,08 0,87 1,06	I II III 0,91 0,89 1,08	I II III 0,90 0,88 1,09	I II III 0,88 0,88 1,09	I II III 0,84 0,89 1,09	I II III 0,84 0,89 1,09

## NUTS III-NUT I – Localization Quotient (Lqik) - Employment -1995-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
<b>North</b>	I II III 2,10 0,98 0,77	I II III 2,11 1,02 0,75	I II III 2,10 1,04 0,74	I II III 2,07 1,08 0,75	I II III 2,02 1,13 0,75	I II III 2,05 1,11 0,69	I II III 2,05 1,08 0,71	I II III 2,00 1,11 0,71	I II III 2,09 1,08 0,72	I II III 2,14 1,09 0,72	I II III 2,14 1,09 0,72
<b>Minho-Lima</b>	I II III 1,00 1,49 0,73	I II III 1,00 1,50 0,72	I II III 1,00 1,52 0,71	I II III 0,98 1,50 0,73	I II III 0,95 1,50 0,74	I II III 0,90 1,46 0,75	I II III 0,87 1,51 0,74	I II III 0,82 1,53 0,74	I II III 0,84 1,50 0,76	I II III 0,83 1,54 0,76	I II III 0,83 1,54 0,76
<b>Cávado</b>	I II III 0,58 2,04 0,52	I II III 0,59 2,03 0,52	I II III 0,59 2,02 0,53	I II III 0,56 2,03 0,52	I II III 0,55 2,03 0,53	I II III 0,51 1,96 0,53	I II III 0,52 1,99 0,54	I II III 0,51 2,00 0,54	I II III 0,55 2,00 0,56	I II III 0,57 2,01 0,56	I II III 0,56 2,01 0,56
<b>Ave</b>	I II III 0,16 1,18 1,09	I II III 0,16 1,17 1,09	I II III 0,17 1,16 1,09	I II III 0,16 1,15 1,08	I II III 0,16 1,14 1,08	I II III 0,16 1,09 1,14	I II III 0,17 1,07 1,15	I II III 0,18 1,02 1,17	I II III 0,19 1,01 1,17	I II III 0,19 1,00 1,17	I II III 0,19 1,00 1,17
<b>Grande Porto</b>	I II III 1,57 1,58 0,56	I II III 1,56 1,57 0,57	I II III 1,50 1,60 0,57	I II III 1,48 1,61 0,57	I II III 1,43 1,62 0,59	I II III 1,21 1,70 0,53	I II III 1,22 1,72 0,54	I II III 1,20 1,73 0,54	I II III 1,24 1,71 0,56	I II III 1,29 1,74 0,55	I II III 1,29 1,74 0,55
<b>Tâmega</b>	I II III 0,51 2,00 0,55	I II III 0,52 2,01 0,55	I II III 0,52 1,99 0,56	I II III 0,50 1,99 0,55	I II III 0,49 1,99 0,57	I II III 0,53 1,92 0,55	I II III 0,53 1,97 0,55	I II III 0,51 1,99 0,55	I II III 0,56 1,96 0,58	I II III 0,62 1,95 0,58	I II III 0,62 1,95 0,58
<b>Entre Douro e Vouga</b>	I II III 3,91 0,42 0,69	I II III 3,84 0,45 0,69	I II III 3,84 0,45 0,70	I II III 3,91 0,46 0,73	I II III 3,88 0,47 0,76	I II III 3,53 0,47 0,74	I II III 3,50 0,46 0,74	I II III 3,48 0,48 0,75	I II III 3,62 0,44 0,72	I II III 3,68 0,46 0,72	I II III 3,68 0,46 0,72
<b>Douro</b>	I II III 3,91 0,33 0,74	I II III 3,95 0,34 0,73	I II III 3,94 0,38 0,72	I II III 3,97 0,40 0,75	I II III 3,93 0,45 0,77	I II III 3,93 0,41 0,68	I II III 3,85 0,40 0,69	I II III 3,75 0,42 0,72	I II III 3,67 0,42 0,72	I II III 3,86 0,43 0,70	I II III 3,86 0,43 0,70
<b>Alto Trás-os-Montes</b>	I II III 1,09 1,36 0,78	I II III 1,10 1,36 0,78	I II III 1,11 1,34 0,79	I II III 1,09 1,32 0,80	I II III 1,07 1,33 0,81	I II III 1,36 1,25 0,76	I II III 1,35 1,28 0,76	I II III 1,33 1,30 0,76	I II III 1,25 1,33 0,76	I II III 1,30 0,76 1,30	I II III 1,30 0,76 1,30
<b>Centre</b>	I II III 1,09 1,36 0,78	I II III 1,10 1,36 0,78	I II III 1,11 1,34 0,79	I II III 1,09 1,32 0,80	I II III 1,07 1,33 0,81	I II III 1,36 1,25 0,76	I II III 1,35 1,28 0,76	I II III 1,33 1,30 0,76	I II III 1,25 1,33 0,76	I II III 1,30 0,76 1,30	I II III 1,30 0,76 1,30
<b>Baixo Vouga</b>	I II III 1,09 1,36 0,78	I II III 1,10 1,36 0,78	I II III 1,11 1,34 0,79	I II III 1,09 1,32 0,80	I II III 1,07 1,33 0,81	I II III 1,36 1,25 0,76	I II III 1,35 1,28 0,76	I II III 1,33 1,30 0,76	I II III 1,25 1,33 0,76	I II III 1,30 0,76 1,30	I II III 1,30 0,76 1,30

Baixo Mondego	1,15	0,77	1,10	1,19	0,76	1,09	1,20	0,75	1,09	1,20	0,77	1,09	1,21	0,78	1,08	1,60	0,68	1,05	1,58	0,68	1,05	1,59	0,68	1,05	1,55	0,68	1,06	1,48	0,67	1,07	
Pinhal Litoral	1,04	1,25	0,85	1,07	1,25	0,85	1,04	1,24	0,86	1,03	1,24	0,86	1,01	1,27	0,86	1,29	1,29	0,76	1,27	1,30	0,77	1,24	1,34	0,75	1,15	1,34	0,78	1,04	1,37	0,80	
Pinhal Interior Norte	1,92	1,16	0,71	1,92	1,14	0,72	1,90	1,12	0,74	1,90	1,14	0,75	1,91	1,15	0,76	2,42	1,09	0,62	2,49	1,05	0,63	2,53	1,06	0,63	2,50	1,06	0,64	2,47	1,08	0,65	
Dão-Lafões	2,33	0,83	0,81	2,35	0,85	0,79	2,31	0,89	0,79	2,35	0,87	0,81	2,29	0,87	0,84	2,77	0,83	0,69	2,84	0,80	0,69	2,93	0,80	0,69	2,98	0,81	0,66	2,97	0,85	0,67	
Pinhal Interior Sul	2,98	0,92	0,62	2,97	0,93	0,61	3,07	0,87	0,63	3,10	0,90	0,65	3,10	0,94	0,66	4,20	0,61	0,50	4,19	0,59	0,51	4,22	0,60	0,52	4,06	0,64	0,52	4,11	0,65	0,53	
Serra da Estrela	2,22	0,96	0,76	2,27	0,94	0,76	2,20	1,01	0,74	2,27	1,00	0,76	2,28	0,98	0,78	2,91	0,86	0,64	2,88	0,83	0,66	2,78	0,87	0,68	2,35	1,03	0,69	2,34	1,01	0,71	
Beira Interior Norte	2,66	0,74	0,79	2,71	0,72	0,78	2,69	0,74	0,79	2,75	0,72	0,81	2,74	0,76	0,81	3,53	0,62	0,65	3,55	0,56	0,66	3,62	0,56	0,68	3,53	0,57	0,67	3,64	0,57	0,67	
Beira Interior Sul	1,98	0,83	0,88	2,07	0,83	0,86	2,12	0,84	0,85	2,15	0,84	0,86	2,13	0,91	0,84	2,76	0,70	0,78	2,89	0,65	0,77	3,04	0,64	0,75	3,08	0,63	0,74	3,17	0,62	0,75	
Cova da Beira	1,61	1,14	0,78	1,66	1,13	0,79	1,72	1,10	0,79	1,72	1,11	0,80	1,74	1,08	0,83	2,39	1,02	0,67	2,50	0,94	0,68	2,57	0,95	0,68	2,62	0,94	0,67	2,62	0,95	0,69	
<b>Lisboa e Vale do Tejo</b>																															
Oeste	1,97	1,00	0,79	1,88	1,01	0,81	1,86	0,98	0,83	1,80	1,01	0,84	1,77	1,01	0,85	1,87	0,92	0,85	1,89	0,91	0,85	1,90	0,94	0,84	1,83	0,93	0,85	1,69	0,95	0,88	
Grande Lisboa	0,04	0,68	1,38	0,04	0,68	1,38	0,04	0,66	1,39	0,04	0,65	1,38	0,04	0,64	1,37	0,03	0,65	1,44	0,03	0,66	1,42	0,03	0,64	1,42	0,03	0,65	1,40	0,03	0,64	1,39	
Península de Setúbal	0,41	0,97	1,14	0,40	0,98	1,14	0,39	0,98	1,14	0,38	0,97	1,13	0,38	0,95	1,14	0,19	1,03	1,17	0,21	1,00	1,18	0,25	0,98	1,17	0,27	0,98	1,17	0,28	0,97	1,17	
Médio Tejo	1,48	1,01	0,89	1,44	1,02	0,89	1,42	1,00	0,91	1,36	1,05	0,90	1,33	1,05	0,92	1,61	0,94	0,89	1,57	0,98	0,88	1,54	1,03	0,86	1,42	1,03	0,89	1,41	1,02	0,91	
Lezíria do Tejo	1,92	0,85	0,88	1,87	0,87	0,88	1,79	0,93	0,87	1,74	0,91	0,91	1,73	0,91	0,92	0,92	1,02	1,01	0,95	1,02	1,00	0,99	1,04	0,98	0,98	1,04	0,98	0,92	1,04	1,00	
<b>Alentejo</b>																															
Alentejo Litoral	1,69	0,76	0,98	1,65	0,73	1,01	1,71	0,72	1,00	1,84	0,73	0,99	1,97	0,71	0,98	1,28	0,78	1,07	1,29	0,81	1,04	1,38	0,82	1,01	1,34	0,76	1,06	1,35	0,71	1,08	
Alto Alentejo	1,81	0,72	0,98	1,83	0,74	0,97	1,90	0,69	0,98	2,03	0,68	0,97	2,20	0,69	0,95	1,34	0,79	1,05	1,38	0,76	1,06	1,42	0,78	1,03	1,38	0,78	1,04	1,41	0,74	1,05	
Alentejo Central	1,52	0,80	1,00	1,48	0,81	1,01	1,47	0,82	1,00	1,57	0,80	1,00	1,68	0,82	0,98	0,84	0,93	1,08	0,93	0,85	1,10	1,03	0,85	1,08	1,12	0,85	1,05	1,07	0,86	1,06	
Baixo Alentejo	2,06	0,47	1,07	2,05	0,48	1,06	2,09	0,45	1,07	2,25	0,46	1,05	2,36	0,51	1,01	1,41	0,58	1,16	1,48	0,55	1,14	1,56	0,58	1,12	1,54	0,54	1,13	1,71	0,55	1,09	
<b>Algarve</b>	1,28	0,48	1,23	1,25	0,49	1,23	1,19	0,51	1,23	1,28	0,52	1,21	1,34	0,52	1,20	0,75	0,61	1,29	0,69	0,62	1,29	0,77	0,64	1,26	0,67	0,73	1,22	0,58	0,74	1,22	
<b>Açores A. R.</b>	2,01	0,64	0,98	1,97	0,63	0,99	2,04	0,63	0,98	2,32	0,65	0,94	2,51	0,64	0,92	1,46	0,72	1,06	1,27	0,75	1,08	1,22	0,77	1,08	1,09	0,77	1,10	1,09	0,78	1,09	
<b>Madeira A. R.</b>	1,60	0,85	0,95	1,58	0,83	0,97	1,54	0,82	0,99	1,46	0,86	0,99	1,41	0,87	1,00	1,08	0,87	1,06	0,91	0,89	1,08	0,90	0,88	1,09	0,88	0,88	1,09	0,84	0,89	1,09	

**NUTS II-NUT I – Localization Quotient (Lqik) - GVA -1995-2004**

	1995			1996			1997			1998			1999			2000			2001			2002			2003			2004		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III			
<b>North</b>	0,85	1,34	0,86	0,89	1,31	0,86	0,78	1,31	0,87	0,80	1,34	0,86	0,85	1,34	0,86	0,70	1,33	0,88	0,74	1,32	0,89	0,72	1,34	0,88	0,73	1,35	0,89	0,76	1,35	0,89
<b>Centre</b>	1,34	1,26	0,87	1,46	1,18	0,88	1,40	1,20	0,88	1,43	1,23	0,87	1,34	1,26	0,87	1,26	1,21	0,90	1,19	1,21	0,91	1,12	1,22	0,91	1,14	1,22	0,91	1,11	1,21	0,92
<b>Lisboa e Vale do Tejo</b>	0,56	0,79	1,11	0,57	0,83	1,11	0,62	0,83	1,10	0,60	0,80	1,11	0,56	0,79	1,11	0,56	0,81	1,10	0,56	0,81	1,10	0,55	0,81	1,09	0,55	0,79	1,10	0,55	0,79	1,09
<b>Alentejo</b>	4,05	0,95	0,86	3,72	0,94	0,82	3,95	0,99	0,82	3,97	0,97	0,84	4,05	0,95	0,86	4,33	0,97	0,83	4,26	0,94	0,85	4,56	0,89	0,87	4,23	1,00	0,85	4,37	0,98	0,86
<b>Algarve</b>	2,13	0,46	1,17	1,60	0,41	1,23	1,89	0,42	1,21	2,00	0,45	1,18	2,13	0,46	1,17	2,21	0,45	1,15	2,26	0,46	1,15	2,26	0,47	1,14	2,27	0,53	1,11	1,98	0,55	1,12
<b>Açores A. R.</b>	2,98	0,61	1,06	2,32	0,55	1,11	2,47	0,59	1,09	2,66	0,64	1,06	2,98	0,61	1,06	3,94	0,58	1,01	3,78	0,61	1,01	4,04	0,62	1,00	4,00	0,63	1,00	4,06	0,66	0,98
<b>Madeira A.R.</b>	0,78	0,62	1,18	0,74	1,59	1,22	0,81	0,55	1,22	0,79	0,62	1,18	0,78	0,62	1,18	0,63	0,63	1,17	0,66	0,67	1,15	0,66	0,58	1,18	0,71	0,66	1,14	0,76	0,70	1,12

**NUTS III-NUT I – Localization Quotient (Lqik) - GVA -1995-2004**

	1995			1996			1997			1998			1999			2000			2001			2002			2003			2004			
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III				
<b>North</b>	1,02	1,32	0,86	1,38	1,24	0,86	0,97	1,26	0,89	1,22	0,89	1,28	0,87	1,02	1,32	0,86	1,01	1,33	0,86	1,06	1,32	0,87	1,03	1,33	0,87	1,05	1,34	0,88	1,11	1,28	0,90
<b>Minho-Lima</b>	0,75	1,43	0,83	0,71	1,45	0,81	0,53	1,44	0,84	0,73	1,42	0,83	0,75	1,43	0,83	0,86	1,46	0,82	0,87	1,48	0,82	1,00	1,49	0,81	0,97	1,47	0,83	1,04	1,47	0,83	
<b>Cávado</b>	0,48	2,04	0,58	0,51	2,03	0,56	0,39	2,00	0,58	0,47	2,04	0,57	0,48	2,04	0,58	0,43	2,05	0,61	0,45	2,02	0,63	0,41	2,07	0,62	0,43	2,08	0,63	0,47	2,04	0,65	
<b>Ave</b>	0,29	1,05	1,02	0,23	1,04	1,04	0,18	1,03	1,06	0,23	1,06	1,02	0,29	1,05	1,02	0,24	0,99	1,05	0,26	0,95	1,06	0,31	0,93	1,06	0,31	0,95	1,05	0,30	0,96	1,04	
<b>Grande Porto</b>	1,06	1,60	0,74	1,40	1,56	0,71	0,78	1,60	0,74	1,16	1,61	0,72	1,06	1,60	0,74	0,77	1,74	0,71	0,84	1,73	0,72	0,66	1,79	0,71	0,67	1,76	0,74	0,69	1,78	0,74	
<b>Tâmega</b>	0,38	1,99	0,61	0,38	1,95	0,61	0,30	1,93	0,63	0,33	1,97	0,61	0,38	1,99	0,61	0,44	2,01	0,63	0,41	2,05	0,62	0,33	2,12	0,60	0,37	2,07	0,64	0,39	2,08	0,64	
<b>Entre Douro e Vouga</b>	5,79	0,68	0,88	5,52	0,74	0,78	4,61	0,69	0,88	5,05	0,73	0,88	5,79	0,68	0,88	3,20	0,76	0,98	3,49	0,77	0,96	2,98	0,81	0,98	3,11	0,83	0,96	2,78	0,87	0,97	
<b>Douro</b>	3,03	0,89	0,94	3,07	0,90	0,89	2,42	0,85	0,97	3,06	0,86	0,94	3,03	0,89	0,94	3,11	0,88	0,93	3,08	0,87	0,94	3,06	0,81	0,97	2,94	0,92	0,94	3,33	0,95	0,92	
<b>Alto Trás-os-Montes</b>																															



<b>Centre</b>	1,05	1,57	0,75	1,04	1,51	0,76	0,91	1,52	0,77	1,11	1,57	0,74	1,05	1,57	0,75	0,85	1,53	0,80	0,83	1,53	0,80	0,86	1,55	0,79	0,83	1,56	0,81	0,81	1,52	0,83	
Baixo Vouga	1,02	1,04	0,98	0,97	0,97	1,02	0,89	0,97	1,03	1,14	1,00	0,99	1,02	1,04	0,98	0,75	0,87	1,06	0,70	0,87	1,07	0,69	0,88	1,06	0,72	0,88	1,06	0,72	0,86	1,06	
Pinhal Litoral	0,63	1,49	0,81	0,78	1,36	0,85	0,67	1,37	0,86	0,66	1,42	0,83	0,63	1,49	0,81	0,92	1,51	0,80	0,96	1,51	0,80	0,77	1,54	0,80	0,82	1,50	0,83	0,80	1,51	0,83	
Pinhal Interior Norte	1,77	1,25	0,85	2,12	1,17	0,83	1,63	1,17	0,88	1,79	1,23	0,85	1,77	1,25	0,85	1,54	1,26	0,87	1,31	1,27	0,88	1,33	1,24	0,89	1,42	1,24	0,89	1,43	1,26	0,89	
Dão-Lafões	1,50	1,04	0,96	2,03	0,94	0,95	1,37	1,01	0,97	1,77	1,02	0,95	1,50	1,04	0,96	2,02	1,04	0,93	2,00	1,08	0,92	1,63	1,09	0,94	1,64	1,12	0,93	1,66	1,15	0,92	
Pinhal Interior Sul	2,77	1,24	0,80	2,53	1,36	0,72	2,37	1,24	0,79	2,81	1,26	0,78	2,77	1,24	0,80	3,33	1,11	0,83	2,45	1,18	0,86	2,88	1,11	0,86	2,96	1,28	0,81	3,01	1,27	0,82	
Serra da Estrela	1,58	1,15	0,90	1,74	1,06	0,91	1,35	1,11	0,92	1,60	1,13	0,90	1,58	1,15	0,90	1,46	1,12	0,92	1,26	1,10	0,95	1,17	1,18	0,93	1,21	1,15	0,94	1,17	1,22	0,91	
Beira Interior Norte	2,66	0,92	0,95	3,00	0,80	0,94	2,05	0,88	0,98	2,54	0,88	0,96	2,66	0,92	0,95	2,03	0,89	0,99	1,76	0,87	1,01	1,67	0,84	1,03	1,68	0,83	1,03	1,66	0,81	1,04	
Beira Interior Sul	3,09	1,06	0,86	2,82	0,95	0,89	2,51	0,97	0,90	3,17	0,99	0,88	3,09	1,06	0,86	2,68	0,95	0,93	2,45	0,92	0,96	2,58	0,87	0,98	2,49	0,87	0,98	2,53	0,85	0,98	
Cova da Beira	2,09	1,10	0,90	2,22	1,06	0,88	1,87	1,04	0,92	2,01	1,09	0,90	2,09	1,10	0,90	1,66	1,13	0,91	1,60	1,11	0,92	1,65	1,12	0,92	1,72	1,04	0,95	1,26	1,05	0,97	
<b>Lisboa e Vale do Tejo</b>																															
Oeste	3,12	1,12	0,83	3,01	1,09	0,81	2,71	1,08	0,84	2,95	1,08	0,85	3,12	1,12	0,83	3,43	0,99	0,87	3,48	1,01	0,87	3,15	1,02	0,89	3,06	1,02	0,90	3,13	1,04	0,89	
Grande Lisboa	0,05	0,63	1,21	0,05	0,69	1,22	0,05	0,67	1,23	0,06	0,64	1,22	0,05	0,63	1,21	0,03	0,65	1,19	0,04	0,66	1,18	0,04	0,66	1,18	0,03	0,65	1,17	0,03	0,65	1,17	
Península de Setúbal	0,66	1,18	0,94	0,71	1,19	0,93	0,63	1,24	0,92	0,76	1,21	0,92	0,66	1,18	0,94	0,54	1,31	0,90	0,60	1,28	0,91	0,57	1,24	0,93	0,59	1,18	0,95	0,57	1,18	0,96	
Médio Tejo	0,96	1,39	0,83	0,88	1,45	0,80	0,78	1,41	0,83	0,94	1,40	0,83	0,96	1,39	0,83	1,04	1,38	0,85	0,95	1,43	0,83	0,94	1,45	0,83	0,98	1,43	0,85	1,01	1,39	0,86	
Lezíria do Tejo	3,77	1,02	0,84	3,90	0,93	0,81	3,65	0,98	0,81	4,19	0,97	0,83	3,77	1,02	0,84	3,52	0,95	0,88	3,35	0,98	0,89	3,67	1,00	0,87	3,63	1,01	0,87	3,72	1,04	0,87	
<b>Alentejo</b>																															
Alentejo Litoral	3,79	1,47	0,65	3,11	1,49	0,61	2,75	1,58	0,60	3,66	1,51	0,62	3,79	1,47	0,65	4,90	1,53	0,57	4,97	1,49	0,60	5,12	1,48	0,62	4,46	1,77	0,56	4,79	1,60	0,62	
Alto Alentejo	4,52	0,79	0,90	4,06	0,76	0,88	3,67	0,76	0,91	4,41	0,79	0,89	4,52	0,79	0,90	4,60	0,79	0,89	4,48	0,76	0,91	4,59	0,79	0,91	4,25	0,81	0,92	4,33	0,79	0,93	
Alentejo Central	3,83	0,81	0,92	3,74	0,78	0,90	3,34	0,81	0,92	3,59	0,86	0,91	3,83	0,81	0,92	3,22	0,88	0,93	2,99	0,86	0,95	3,32	0,70	1,00	3,07	0,77	0,99	3,11	0,76	0,99	
Baixo Alentejo	4,20	0,71	0,95	4,10	0,72	0,89	3,69	0,76	0,91	4,43	0,66	0,95	4,20	0,71	0,95	5,01	0,63	0,93	5,08	0,61	0,94	5,70	0,57	0,94	5,59	0,57	0,95	5,68	0,76	0,88	
<b>Algarve</b>	2,13	0,46	1,17	1,60	0,41	1,23	1,60	0,42	1,23	2,00	0,45	1,18	2,13	0,46	1,17	2,21	0,45	1,15	2,26	0,46	1,15	2,26	0,47	1,14	2,27	0,53	1,11	1,98	0,55	1,12	
<b>Açores A. R.</b>	2,98	0,61	1,06	2,32	0,55	1,11	2,08	0,59	1,12	2,66	0,64	1,06	2,98	0,61	1,06	3,94	0,58	1,01	3,78	0,61	1,01	4,04	0,62	1,00	4,00	0,63	1,00	4,06	0,66	0,98	
<b>Madeira A. R.</b>	0,78	0,62	1,18	0,74	0,58	1,22	0,68	0,55	1,24	0,79	0,62	1,18	0,78	0,62	1,18	0,63	0,63	1,17	0,66	0,67	1,15	0,66	0,58	1,18	0,71	0,66	1,14	0,76	0,70	1,12	

Francisco Diniz, Teresa Sequeira- *Productive specialization and regional development in Portugal at the NUTS III level*

**NUTS II-NUT I - - Specialization Coefficient (SCik) - Employment -1995-2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>North</b>	0,11	0,11	0,11	0,11	0,11	0,11	0,05	0,11	0,10	0,10
<b>Centre</b>	0,08	0,09	0,08	0,08	0,08	0,14	0,20	0,14	0,13	0,13
<b>Lisboa e Vale do Tejo</b>	0,14	0,14	0,14	0,14	0,14	0,15	0,15	0,14	0,14	0,14
<b>Alentejo</b>	0,09	0,09	0,10	0,10	0,11	0,07	0,05	0,07	0,08	0,08
<b>Algarve</b>	0,16	0,16	0,15	0,15	0,15	0,16	0,12	0,14	0,12	0,13
<b>Açores Autonomic Region</b>	0,12	0,12	0,12	0,15	0,16	0,09	0,06	0,07	0,07	0,07
<b>Madeira Autonomic Region</b>	0,07	0,07	0,06	0,05	0,04	0,04	0,03	0,05	0,05	0,05

**NUTS III-NUT I - Specialization Coefficient (SCik) - Employment -1995-2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>North</b>										
Minho-Lima	0,135	0,14	0,15	0,1446	0,147	0,17	0,16	0,16	0,16	0,16
Cávado	0,154	0,16	0,16	0,1572	0,156	0,15	0,16	0,167	0,15	0,16
Ave	0,326	0,32	0,32	0,3221	0,319	0,32	0,31	0,316	0,31	0,3
Grande Porto	0,103	0,1	0,1	0,0936	0,089	0,11	0,11	0,101	0,1	0,1
Tâmega	0,249	0,25	0,25	0,245	0,238	0,26	0,26	0,256	0,25	0,26
Entre Douro e Vouga	0,313	0,32	0,31	0,311	0,307	0,3	0,31	0,315	0,3	0,29
Douro	0,355	0,35	0,34	0,324	0,304	0,32	0,32	0,305	0,33	0,32
Alto Trás-os-Montes	0,356	0,36	0,35	0,331	0,307	0,37	0,36	0,338	0,33	0,34
<b>Centre</b>										
Baixo Vouga	0,124	0,12	0,12	0,1122	0,11	0,13	0,13	0,136	0,13	0,13
Baixo Mondego	0,073	0,07	0,08	0,0718	0,067	0,1	0,1	0,103	0,1	0,1
Pinhal Litoral	0,082	0,09	0,08	0,0777	0,085	0,13	0,13	0,137	0,12	0,12
Pinhal Interior Norte	0,163	0,16	0,15	0,1446	0,142	0,21	0,21	0,205	0,21	0,2
Dão-Lafões	0,162	0,17	0,16	0,1499	0,136	0,22	0,24	0,238	0,25	0,24
Pinhal Interior Sul	0,242	0,24	0,25	0,2316	0,221	0,4	0,41	0,396	0,38	0,38
Serra da Estrela	0,15	0,16	0,15	0,1392	0,135	0,24	0,24	0,22	0,18	0,16
Beira Interior Norte	0,202	0,21	0,2	0,1948	0,184	0,32	0,33	0,323	0,32	0,32
Beira Interior Sul	0,12	0,13	0,13	0,1289	0,119	0,22	0,24	0,251	0,26	0,26
Cova da Beira	0,121	0,12	0,12	0,1142	0,102	0,18	0,19	0,193	0,2	0,2
<b>Lisboa e Vale do Tejo</b>										
Oeste	0,12	0,11	0,1	0,0908	0,085	0,11	0,11	0,11	0,1	0,08
Grande Lisboa	0,218	0,22	0,22	0,2169	0,213	0,24	0,23	0,232	0,23	0,23
Península de Setúbal	0,08	0,08	0,08	0,0777	0,081	0,1	0,1	0,097	0,1	0,1
Médio Tejo	0,06	0,06	0,05	0,057	0,05	0,08	0,07	0,076	0,06	0,05
Lezíria do Tejo	0,113	0,11	0,09	0,082	0,077	0,01	0,01	0,011	0,01	0,01
<b>Alentejo</b>										
Alentejo Litoral	0,084	0,08	0,09	0,0932	0,101	0,07	0,06	0,056	0,08	0,09
Alto Alentejo	0,099	0,1	0,11	0,1149	0,126	0,07	0,08	0,07	0,07	0,08
Alentejo Central	0,065	0,06	0,06	0,0636	0,071	0,04	0,06	0,048	0,05	0,04
Baixo Alentejo	0,166	0,16	0,17	0,1693	0,151	0,14	0,14	0,133	0,14	0,14

Francisco Diniz, Teresa Sequeira- *Productive specialization and regional development in Portugal at the NUTS III level*

<b>Algarve</b>	0,162	0,16	0,15	0,1508	0,149	0,16	0,16	0,143	0,12	0,13
<b>Açores Autonomic Region</b>	0,124	0,12	0,12	0,1468	0,158	0,09	0,08	0,072	0,07	0,07
<b>Madeira Autonomic Region</b>	0,073	0,07	0,06	0,051	0,044	0,04	0,05	0,052	0,05	0,05

**NUTS II-NUT I - Specialization Coefficient (SCik) - GVA -1995-2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>North</b>	0,10	0,10	0,09	0,10	0,10	0,09	0,09	0,08	0,09	0,09
<b>Centre</b>	0,09	0,08	0,10	0,09	0,09	0,07	0,06	0,07	0,06	0,06
<b>Lisboa e Vale do Tejo</b>	0,08	0,08	0,09	0,08	0,08	0,07	0,07	0,08	0,07	0,07
<b>Alentejo</b>	0,12	0,14	0,25	0,12	0,12	0,13	0,12	0,21	0,11	0,11
<b>Algarve</b>	0,16	0,19	0,15	0,17	0,16	0,15	0,15	0,10	0,12	0,11
<b>Açores Autonomic Region</b>	0,12	0,14	0,07	0,11	0,12	0,12	0,11	0,10	0,10	0,10
<b>Madeira Autonomic Region</b>	0,12	0,15	0,16	0,13	0,12	0,12	0,10	0,12	0,10	0,08

**NUTS III-NUT I – Specialization Coefficient (SCik) - GVA -1995-2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>North</b>										
Minho-Lima	0,10	0,10	0,08	0,09	0,10	0,09	0,09	0,09	0,09	0,07
Cávado	0,13	0,14	0,14	0,13	0,13	0,13	0,13	0,13	0,12	0,12
Ave	0,32	0,33	0,32	0,33	0,32	0,29	0,28	0,29	0,28	0,26
Grande Porto	0,03	0,04	0,04	0,03	0,03	0,03	0,04	0,04	0,03	0,03
Tâmega	0,19	0,20	0,19	0,20	0,19	0,21	0,20	0,21	0,20	0,20
Entre Douro e Vouga	0,30	0,30	0,29	0,30	0,30	0,28	0,29	0,30	0,28	0,27
Douro	0,19	0,23	0,18	0,17	0,19	0,08	0,09	0,07	0,07	0,06
Alto Trás-os-Montes	0,08	0,11	0,07	0,08	0,08	0,08	0,07	0,07	0,06	0,07
<b>Centre</b>	0,55	0,60	0,49	0,55	0,55	0,48	0,48	0,48	0,47	0,47
Baixo Vouga	0,18	0,16	0,16	0,18	0,18	0,15	0,14	0,15	0,14	0,13
Baixo Mondego	0,01	0,01	0,02	0,01	0,01	0,04	0,05	0,04	0,04	0,04
Pinhal Litoral	0,15	0,12	0,11	0,13	0,15	0,14	0,14	0,15	0,13	0,13
Pinhal Interior Norte	0,11	0,11	0,08	0,11	0,11	0,09	0,09	0,08	0,08	0,08
Dão-Lafões	0,03	0,05	0,02	0,04	0,03	0,05	0,06	0,05	0,05	0,06
Pinhal Interior Sul	0,14	0,19	0,15	0,15	0,14	0,12	0,10	0,09	0,14	0,13
Serra da Estrela	0,07	0,06	0,05	0,07	0,07	0,05	0,03	0,05	0,05	0,06
Beira Interior Norte	0,06	0,10	0,05	0,06	0,06	0,04	0,03	0,04	0,04	0,05
Beira Interior Sul	0,10	0,09	0,08	0,09	0,10	0,06	0,05	0,05	0,05	0,05
Cova da Beira	0,07	0,08	0,05	0,07	0,07	0,06	0,05	0,05	0,03	0,02
<b>Lisboa e Vale do Tejo</b>	0,35	0,43	0,34	0,43	0,44	0,33	0,29	0,28	0,28	0,27
Oeste	0,12	0,13	0,11	0,11	0,12	0,09	0,09	0,08	0,07	0,08
Grande Lisboa	0,15	0,15	0,16	0,15	0,15	0,13	0,13	0,12	0,12	0,12
Península de Setúbal	0,05	0,06	0,08	0,07	0,05	0,09	0,08	0,07	0,05	0,04
Médio Tejo	0,12	0,14	0,13	0,12	0,12	0,11	0,12	0,12	0,11	0,10
Lezíria do Tejo	0,11	0,15	0,14	0,13	0,11	0,10	0,08	0,09	0,09	0,10
<b>Alentejo</b>	0,12	0,15	0,17	0,13	0,12	0,11	0,11	0,11	0,09	0,09

Francisco Diniz, Teresa Sequeira- *Productive specialization and regional development in Portugal at the NUTS III level*

Alentejo Litoral	0,25	0,27	0,27	0,27	0,25	0,29	0,28	0,27	0,31	0,27
Alto Alentejo	0,14	0,16	0,14	0,14	0,14	0,14	0,13	0,12	0,11	0,11
Alentejo Central	0,11	0,14	0,12	0,11	0,11	0,08	0,07	0,08	0,07	0,07
Baixo Alentejo	0,12	0,16	0,14	0,14	0,12	0,15	0,15	0,16	0,15	0,15
<b>Algarve</b>	0,16	0,19	0,19	0,17	0,16	0,15	0,15	0,14	0,12	0,11
<b>Açores Autonomic Region</b>	0,12	0,14	0,13	0,11	0,12	0,12	0,11	0,10	0,10	0,10
<b>Madeira Autonomic Region</b>	0,12	0,15	0,16	0,13	0,12	0,12	0,10	0,12	0,10	0,08

**NUTS II-NUT I- Theil Index (ITik) - Employment -1995-2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>North</b>	0,10	0,10	0,10	0,12	0,13	0,11	0,10	0,11	0,11	0,11
<b>Centre</b>	0,06	0,06	0,06	0,07	0,08	0,02	0,02	0,02	0,02	0,03
<b>Lisboa e Vale do Tejo</b>	0,31	0,32	0,32	0,33	0,35	0,31	0,32	0,32	0,33	0,35
<b>Alentejo</b>	0,11	0,11	0,11	0,11	0,11	0,14	0,15	0,14	0,14	0,16
<b>Algarve</b>	0,25	0,25	0,26	0,25	0,25	0,28	0,30	0,28	0,27	0,30
<b>Açores Autonomic Region</b>	0,10	0,10	0,10	0,08	0,08	0,12	0,14	0,15	0,17	0,18
<b>Madeira Autonomic Region</b>	0,09	0,09	0,10	0,12	0,42	0,14	0,17	0,18	0,19	0,37

**NUTS III-NUT I- Theil Index (ITik) - Employment -1995-2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>North</b>										
Minho-Lima	0,023	0,0195	0,02064	0,02802	0,0365	0,012	0,01232	0,018	0,01	0,017
Cávado	0,109	0,1099	0,11388	0,12523	0,1365	0,121	0,12349	0,137	0,13	0,136
Ave	0,242	0,2367	0,23715	0,25055	0,2555	0,257	0,24359	0,248	0,23	0,223
Grande Porto	0,324	0,3233	0,32253	0,33048	0,3383	0,323	0,33034	0,339	0,34	0,35
Tâmega	0,063	0,0624	0,07163	0,08307	0,0919	0,116	0,10784	0,114	0,1	0,097
Entre Douro e Vouga	0,245	0,2446	0,24271	0,25357	0,2582	0,243	0,23669	0,248	0,22	0,206
Douro	0,102	0,0925	0,09056	0,08345	0,0817	0,077	0,08441	0,077	0,09	0,089
Alto Trás-os-Montes	0,134	0,132	0,11597	0,10381	0,0891	0,104	0,10929	0,096	0,1	0,102
<b>Centre</b>										
Baixo Vouga	0,097	0,0951	0,09754	0,10984	0,1221	0,06	0,05987	0,067	0,07	0,075
Baixo Mondego	0,168	0,1632	0,16816	0,17554	0,1826	0,11	0,11884	0,125	0,13	0,157
Pinhal Litoral	0,107	0,1038	0,11131	0,12335	0,1339	0,068	0,06797	0,077	0,09	0,106
Pinhal Interior Norte	0,022	0,0233	0,02766	0,0359	0,0433	0,002	0,00068	0,001	0	0,004
Dão-Lafões	0,031	0,0261	0,0257	0,03444	0,0472	0,008	0,01378	0,014	0,01	0,013
Pinhal Interior Sul	0,005	0,0041	0,008	0,00581	0,0058	0,078	0,08436	0,076	0,07	0,062
Serra da Estrela	0,019	0,0184	0,01785	0,0234	0,0322	0,005	0,00991	0,008	0,01	0,013
Beira Interior Norte	0,032	0,0334	0,0326	0,0405	0,0406	0,043	0,05847	0,059	0,06	0,06
Beira Interior Sul	0,052	0,0473	0,04501	0,05108	0,0522	0,026	0,03799	0,039	0,04	0,051
Cova da Beira	0,046	0,0433	0,04338	0,05229	0,0633	0,003	0,00474	0,005	0,01	0,009
<b>Lisboa e Vale do Tejo</b>										
Oeste	0,029	0,0358	0,0437	0,05576	0,068	0,036	0,03781	0,039	0,05	0,066
Grande Lisboa	0,502	0,5035	0,50961	0,51442	0,5215	0,508	0,51194	0,517	0,52	0,531
Península de Setúbal	0,276	0,2799	0,28429	0,29457	0,3073	0,325	0,32662	0,321	0,32	0,328

Francisco Diniz, Teresa Sequeira- *Productive specialization and regional development in Portugal at the NUTS III level*

Médio Tejo	0,074	0,0757	0,08573	0,09661	0,1121	0,056	0,05763	0,061	0,07	0,088
Lezíria do Tejo	0,054	0,0554	0,05723	0,07554	0,0883	0,14	0,13669	0,134	0,14	0,157
<b>Alentejo</b>										
Alentejo Litoral	0,095	0,1081	0,10775	0,10531	0,1086	0,128	0,12345	0,115	0,14	0,163
Alto Alentejo	0,092	0,0865	0,09629	0,09726	0,0928	0,117	0,12488	0,12	0,13	0,146
Alentejo Central	0,108	0,111	0,11329	0,11528	0,1122	0,169	0,17239	0,163	0,15	0,167
Baixo Alentejo	0,15	0,1474	0,15864	0,15342	0,1351	0,169	0,17227	0,16	0,18	0,168
<b>Algarve</b>	0,246	0,2494	0,25552	0,247	0,2515	0,28	0,29623	0,277	0,27	0,302
<b>Açores Autonomic Region</b>	0,095	0,1026	0,10045	0,08412	0,0835	0,118	0,13984	0,151	0,17	0,182
<b>Madeira Autonomic Region</b>	0,086	0,0927	0,10419	0,11622	0,419	0,14	0,16815	0,181	0,19	0,372

**NUTS II-NUT I- Theil Index (ITik) - GVA -1995-2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>North</b>	0,29	0,25	0,29	0,29	0,29	0,30	0,30	0,31	0,32	0,32
<b>Centre</b>	0,25	0,21	0,24	0,24	0,25	0,26	0,28	0,29	0,30	0,31
<b>Lisboa e Vale do Tejo</b>	0,44	0,39	0,40	0,43	0,44	0,43	0,43	0,44	0,46	0,47
<b>Alentejo</b>	0,13	0,09	0,10	0,12	0,13	0,12	0,14	0,15	0,16	0,16
<b>Algarve</b>	0,42	0,43	0,43	0,42	0,42	0,41	0,41	0,42	0,41	0,43
<b>Açores Autonomic Region</b>	0,29	0,30	0,31	0,29	0,29	0,24	0,25	0,25	0,27	0,26
<b>Madeira Autonomic Region</b>	0,48	0,46	0,48	0,47	0,48	0,48	0,64	0,52	0,49	0,48

**NUTS III-NUT I Theil Index (ITik) - GVA -1995-2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>North</b>										
Minho-Lima	0,2763	0,2087	0,252	0,254	0,2763	0,2697	0,274	0,285	0,29	0,3
Cávado	0,2922	0,2658	0,2923	0,289	0,2922	0,2715	0,274	0,271	0,28	0,28
Ave	0,3304	0,3203	0,3324	0,335	0,3304	0,3132	0,311	0,319	0,31	0,31
Grande Porto	0,407	0,3966	0,4109	0,408	0,407	0,4236	0,434	0,44	0,44	0,45
Tâmega	0,2528	0,1894	0,2548	0,239	0,2528	0,2676	0,265	0,287	0,29	0,29
Entre Douro e Vouga	0,3372	0,3259	0,3356	0,344	0,3372	0,31	0,316	0,331	0,32	0,32
Douro	0,1295	0,0568	0,1055	0,127	0,1295	0,2248	0,216	0,254	0,25	0,27
Alto Trás-os-Montes	0,2005	0,1317	0,1903	0,191	0,2005	0,198	0,214	0,248	0,24	0,22
<b>Centre</b>										
Baixo Vouga	0,2551	0,2246	0,2403	0,243	0,2551	0,2671	0,275	0,278	0,29	0,3
Baixo Mondego	0,3228	0,3019	0,3138	0,308	0,3228	0,3875	0,401	0,409	0,42	0,43
Pinhal Litoral	0,3004	0,2634	0,2782	0,297	0,3004	0,2614	0,264	0,287	0,29	0,3
Pinhal Interior Norte	0,2198	0,1515	0,1955	0,209	0,2198	0,2334	0,259	0,273	0,28	0,28
Dão-Lafões	0,2785	0,1988	0,2484	0,247	0,2785	0,2333	0,238	0,276	0,28	0,28
Pinhal Interior Sul	0,1548	0,1085	0,1274	0,138	0,1548	0,1395	0,191	0,19	0,17	0,18
Serra da Estrela	0,2474	0,1979	0,2303	0,238	0,2474	0,2611	0,293	0,298	0,31	0,31
Beira Interior Norte	0,2187	0,1592	0,2142	0,22	0,2187	0,2657	0,302	0,332	0,35	0,36
Beira Interior Sul	0,161	0,1373	0,1556	0,157	0,161	0,2092	0,241	0,262	0,28	0,29
Cova da Beira	0,2194	0,1596	0,1949	0,214	0,2194	0,2453	0,261	0,269	0,29	0,33
<b>Lisboa e Vale do Tejo</b>										

Francisco Diniz, Teresa Sequeira- *Productive specialization and regional development in Portugal at the NUTS III level*

Oeste	0,1508	0,1019	0,1227	0,152	0,1508	0,1555	0,16	0,193	0,21	0,21
Grande Lisboa	0,5796	0,542	0,5516	0,569	0,5796	0,5654	0,563	0,567	0,58	0,59
Península de Setúbal	0,3338	0,2919	0,2973	0,309	0,3338	0,3225	0,326	0,343	0,36	0,37
Médio Tejo	0,2743	0,245	0,2603	0,268	0,2743	0,2622	0,271	0,28	0,29	0,29
Lezíria do Tejo	0,1323	0,0789	0,0838	0,107	0,1323	0,1596	0,174	0,172	0,18	0,18
<b>Alentejo</b>										
Alentejo Litoral	0,0907	0,0774	0,0988	0,088	0,0907	0,0501	0,055	0,062	0,09	0,08
Alto Alentejo	0,1483	0,1095	0,1303	0,136	0,1483	0,1452	0,17	0,179	0,2	0,21
Alentejo Central	0,1753	0,1222	0,1375	0,161	0,1753	0,1916	0,222	0,266	0,27	0,28
Baixo Alentejo	0,1884	0,1178	0,1311	0,173	0,1884	0,1741	0,19	0,2	0,22	0,16
<b>Algarve</b>	0,4184	0,4316	0,4306	0,42	0,4184	0,4063	0,412	0,423	0,41	0,43
<b>Açores Autonomic Region</b>	0,2925	0,298	0,3052	0,287	0,2925	0,2432	0,254	0,254	0,27	0,26
<b>Madeira Autonomic Region</b>	0,4792	0,4609	0,4842	0,466	0,4792	0,4839	0,637	0,515	0,49	0,48