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Regional Labour Markets And Objective 1 Regions : Are Objective 1 Regions Less Flexible?

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**40th Congress of the
European Regional Science Association
Barcelona – 29 August – 1 September 2000**

**Regional Labour Markets and Objective 1 Regions :
Are Objective 1 Regions less flexible ?**

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Abstract

The aim of this paper is to compare the degree of flexibility of regional labour markets and especially to compare Objective 1 Regions with other European regions. Do to so, we use the Regio database and we build several labour market flexibility indicators. We also estimate a simple labour demand model to evaluate several labour demand elasticities and the speed of reaction to demand shocks in the Objective 1 Regions compared to the others. If some indicators seem to confirm a smaller degree of flexibility of the labour market in Objective 1 Regions, our estimates indicates that the small spread of new labour contracts in Objective 1 Regions labour market seems to be mainly the result of a smaller labour demand elasticity with regard to output than of a smaller degree of flexibility.

1. Introduction

Recent developments in labour economics (Saint-Paul (1996)) have stress the fact that the high unemployment level observed in European countries, compared with those observe in the U.S., may be related to a relatively important rigidity in the adjustment of the labour market – both in terms of employment level and wages - in European countries due to high level of adjustment costs associated to the standard long term employment contract massively used in those countries until early nineties.

This relatively low level of flexibility of the labour market could also be an explanation of the structural problems associated with Objectives 1 Regions in European countries where both Objectives 1 and Non Objectives 1 regions are observed (Belgium, Spain, Italy, Germany). This paper investigate this particular question and try to evaluate the difference in terms of flexibility of the labour market between European regions which benefit or not of the European structural funds.

To answer this particular question, we use the Regio database and present different indicators of several aspects of “flexibility” associated to labour market. We consider three different measures. First, we compare the share of part-time employment in total employment in the different regions. Part-time contracts may be a proxy of the newly introduced short-term employment contracts (flexible bad jobs versus long term good jobs). Secondly, we analyse flexibility associated to geographic mobility by comparing regional migration rates in the different European countries. Finally, we analyse the degree of flexibility in terms of adjustment of the labour force by estimating a small dynamic labour demand model for Objective 1 and non Objective 1 regions.

The following sections are structured as follow.

In section 2, we present a small labour demand model with quadratic adjustment costs. In section 3, we present the Regio database and the sub-sample we use. In section 4, we present the econometric results we obtain and the selected flexibility indicators we compute. In section 5, we summarise our major conclusions.

2. Theoretical framework

In this particular section, we present a simple labour demand model.

The model is based on the hypothesis that firms are demand constrained and that there are labour demand adjustment costs that can be represent by a quadratic and symmetric function. So they are facing the following minimisation problem :

$$\text{Min}_{L_{t+\tau}; K_{t+\tau}} E_t \left[\sum_{\tau=0}^{\infty} \left(\frac{1}{1+r} \right)^{\tau} \left(W_{t+\tau} L_{t+\tau} + r_{t+\tau} K_{t+\tau} + \frac{a}{2} (\Delta L_{t+\tau})^2 + \frac{b}{2} (\Delta K_{t+\tau})^2 \right) \right] \quad (1)$$

under the constraint that $Q_{t+\tau} = F(L_{t+\tau}; K_{t+\tau})$

This mean that a firm minimises at time t the sum of the discounted values of total actual and future production and adjustment costs under the constraint that production $F(.,.)$ equals demand Q .

Solving this intertemporal maximisation problems leads to the following first order conditions :

$$E_t \left[W_{t+\tau} - \lambda_{t+\tau} \left(\frac{\partial F}{\partial L} \right)_{t+\tau} + a \left(\Delta L_{t+\tau} - \left(\frac{1}{1+r} \right) \Delta L_{t+\tau+1} \right) \right] = 0 \quad (2)$$

$$E_t \left[r_{t+\tau} - \lambda_{t+\tau} \left(\frac{\partial F}{\partial K} \right)_{t+\tau} + b \left(\Delta K_{t+\tau} - \left(\frac{1}{1+r} \right) \Delta K_{t+\tau+1} \right) \right] = 0 \quad (3)$$

and the production constraint.

Under several assumptions (for details see Nickell ...), the cost minimisation function leads to the following labour adjustment process :

$$\ln L_t = \gamma \ln L_{t-1} + (1-\gamma) \ln L_t^* \quad (4)$$

An analytical expression for $\ln L_t^*$ can be computed solving the minimisation cost problem assuming no adjustment costs and a Cobb-Douglass production function. Under these assumptions $\ln L_t^*$ is given by :

$$\ln L_t^* = \beta_0 + \beta_1 \ln Y_t + \beta_2 \ln W_t + \beta_3 \ln r_t \quad (5)$$

We will assume that the use cost of capital is equal to a constant plus a white noise.

Substituting equation (5) in equation (4), we obtained equation (6)

$$\Delta \ln N_{it} = \alpha \ln N_{i,t-1} + \beta_1 \ln Y_{it} + \beta_2 \ln W_{it} + \gamma_{ic} + \varepsilon_{ict} \quad (6)$$

The α coefficients represent adjustment coefficients and should be close to 1 in countries with highly regulated labour market. β_1 and β_2 represent short-run elasticity's with regard to respectively output and wages. Index i represent European regions.

In section 4, we present results obtained estimating equation (6) and a reduced form of equation (6) without wages and rental rate of capital.

3. Data

As we mention above, we use employment and production data presented in the Regio database published by Eurostat to estimate equation (6). This database provides several indicators at the NUTS 2 (or NUTS 3) level, which is the administrative level taken into account for Objective 1 funds attribution.

Firstly, we selected the CE12 countries (Belgium, Denmark, Germany, Greece, Spain, France, Italy, Ireland, Luxembourg, Netherlands, Portugal and United Kingdom) during the 1986-1997 period. Due to statistical availability for some particular regions, we consider the following administrative entities. We do not consider UK regions because data was not available at the NUTS2 level.

Data on labour costs are extracted from the AMECO database published by DG2. This variable is observed at the country (no regional disparities assumed).

Country	Regions (Objective 1 regions)	Observation period
Belgium	Brussels (be1),	1986-1997
	Antwerpen (be21),	1986-1997
	Limburg (be22),	1986-1997
	Oost-Vlaanderen (be23),	1986-1997
	Vlaams Brabant (be24),	1986-1997
	West-Vlaanderen (be25),	1986-1997
	Brabant Wallon (be31),	1986-1997
	Hainaut (be32),	1986-1997
	Liège (be33),	1986-1997
	Luxembourg (be34),	1986-1997
	Namur (be35)	1986-1997
Denmark	Denmark (dk)	1986-1997
Germany	Baden-Württemberg (de1),	1986-1997
	Bayern (de2),	1986-1997
	Berlin (de3),	1991-1997
	Brandenburg (de4),	1991-1997
	Bremen (de5),	1986-1997
	Hamburg (de6),	1986-1997
	Hessen (de7),	1986-1997
	Mecklenburg-Vorpommern (de8),	1991-1997
	Niedersachsen (de9),	1986-1997
	Nordrhein-Westfalen (dea),	1986-1997
	Rheinland-Pfalz (deb),	1986-1997
	Saarland (dec),	1986-1997
	Sachsen (ded),	1991-1997
	Sachsen-Anhalt (dee),	1991-1997
Schleswig-Holstein (def),	1986-1997	
Thüringen (deg)	1986-1997	

Greece	Anatoliki Makedonia, Thraki (gr11), Kentriki Makedonia (gr12), Dytiki Makedonia (gr13), Thessalia (gr14), Ipeiros (gr21), Ionia Nisia (gr22), Dytiki Ellada (gr23), Sterea Ellada (gr24), Peloponnisos (gr25), Attiki (gr3), Voreio Aigaio (gr41), Notio Aigaio (gr42), Kriti (gr43)	1988-1997 1988-1997 1988-1997 1986-1997 1986-1997 1988-1997 1988-1997 1988-1997 1988-1997 1988-1997 1988-1997 1986-1997
Spain	Galicia (es11), Principado de Asturias (es12), Cantabria (es13), Pais Vasco (es21), Comunidad Foral de Navarra (es22), La Rioja (es23), Aragón (es24), Comunidad de Madrid (es3), Castilla y León (es41), Castilla-la Mancha (es42), Extremadura (es43), Cataluña (es51), Comunidad Valenciana (es52), Balears (es53), Andalucía (es61), Murcia (es62), Ceuta y Melilla (es63), Canarias (es7)	1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1988-1997 1986-1997
France	Île de France (fr1), Champagne-Ardenne (fr21), Picardie (fr22), Haute-Normandie (fr23), Centre (fr24), Basse-Normandie (fr25), Bourgogne (fr26), Nord - Pas-de-Calais (fr3), Lorraine (fr41), Alsace (fr42), Franche-Comté (fr43), Pays de la Loire (fr51), Bretagne (fr52), Poitou-Charentes (fr53), Aquitaine (fr61), Midi-Pyrénées (fr62), Limousin (fr63), Rhône-Alpes (fr71), Auvergne (fr72), Languedoc-Roussillon (fr81), Provence-Alpes-Côte d'Azur (fr82), Corse (fr83)	1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1986-1997 1988-1997 1988-1997
Ireland	Ireland (ie)	1986-1997
Italy	Piemonte (it11), Valle d'Aosta (it12), Liguria (it13), Lombardia (it2), Trentino-Alto Adige (it31), Veneto (it32), Friuli-Venezia Giulia (it33), Emilia-Romagna (it4), Toscana (it51), Umbria (it52), Marche (it53), Lazio (it6), Abruzzo (it71), Molise (it72), Campania (it8), Puglia (it91), Basilicata (it92), Calabria (it93), Sicilia (ita), Sardegna (itb)	1986-1997 1986-1997
Luxembourg	Luxembourg (lu)	1986-1997

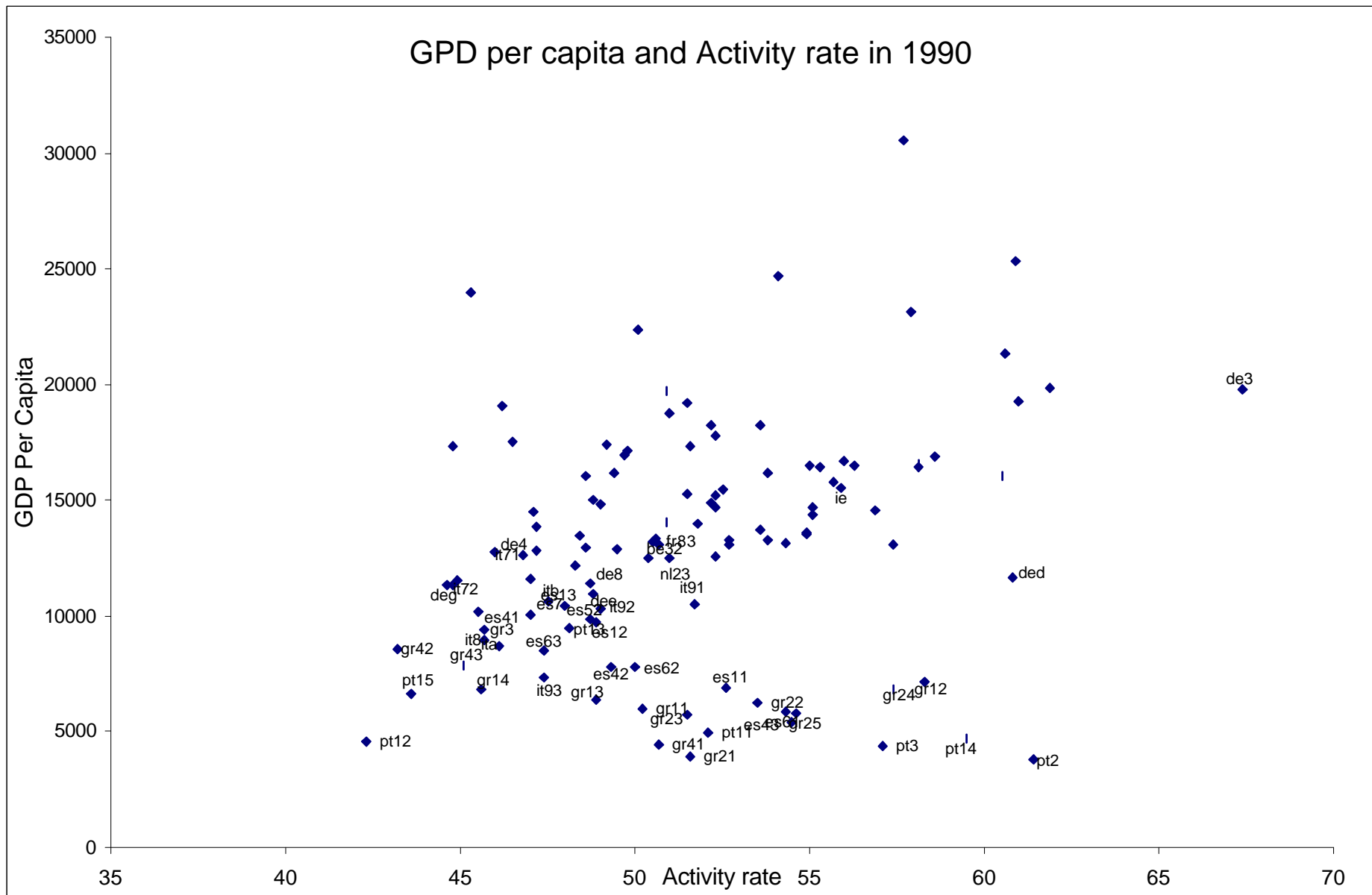
Netherlands	Groningen (nl11), Friesland (nl12), Drenthe (nl13), Overijssel (nl21), Gelderland (nl22), Flevoland (nl23), Utrecht (nl31), Noord-Holland (nl32), Zuid-Holland (nl33), Zeeland (nl34), Noord-Brabant (nl41), Limburg (nl42)	1987-1997 1987-1997 1987-1997 1987-1997 1987-1997 1988-1997 1987-1997 1987-1997 1987-1997 1987-1997 1987-1997 1987-1997
Portugal	Norte (pt11), Centro (pt12), Lisboa e Vale do Tejo (pt13), Alentejo (pt14), Algarve (pt15), Açores (pt2), Madeira (pt3)	1986-1997 1986-1997 1986-1997 1986-1997 1988-1997 1988-1997 1988-1997

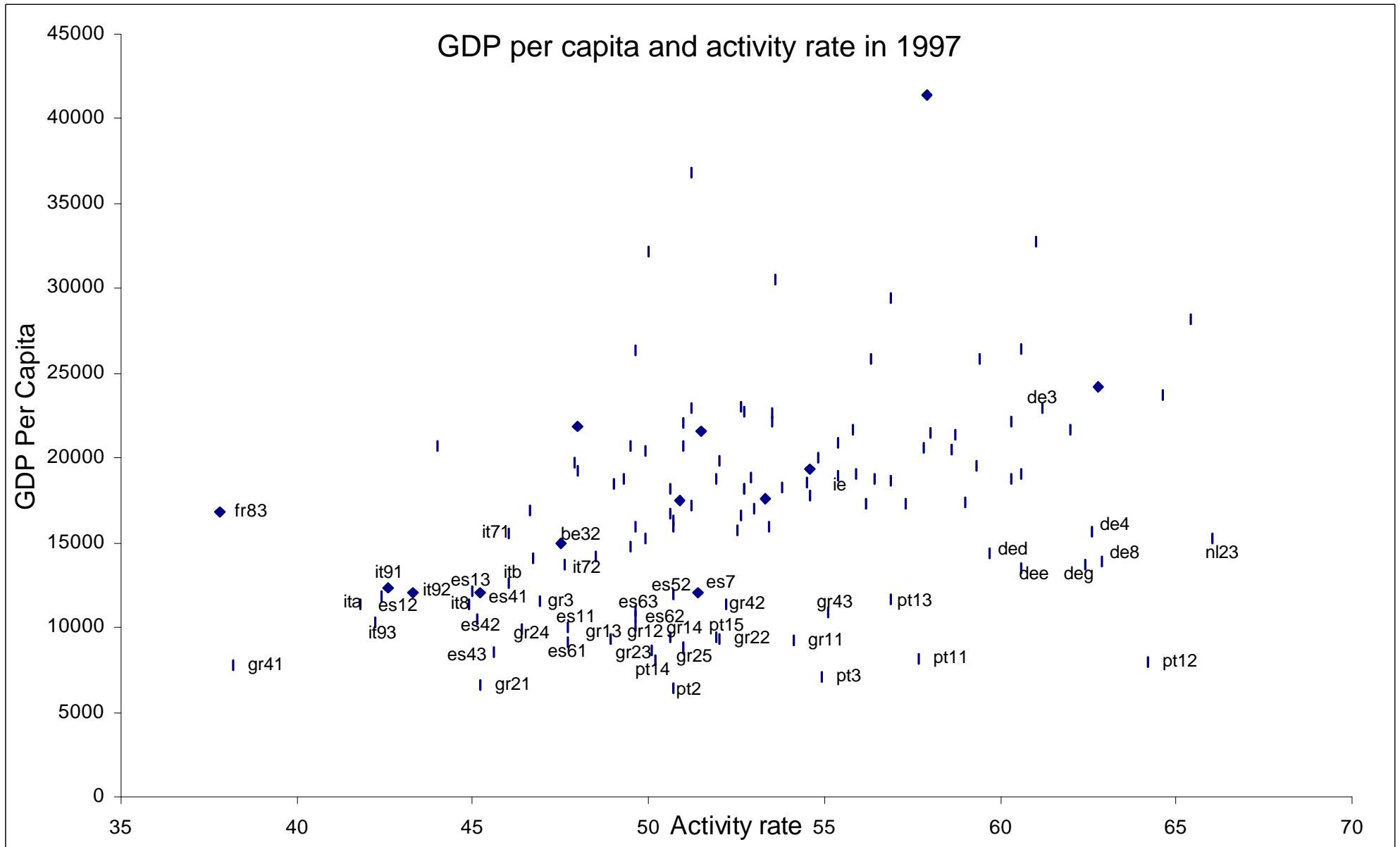
As mentioned above, before presenting the estimation results, we will present, in section 4.1 and 4.2 several indicators of labour market flexibility.

But before analysing those flexibility indicators, we present some other variables related to Objective 1 and labour market.

The following graphs present the relation between GDP per capita and activity rate at the regional level in 1990 and 1997.

As we can see, Objective 1 regions present jointly low level of GDP per capita (mostly below 15.000 EUR per capital in 1997) and low level of activity rate (mostly below 50-55 %), except former-DDR and dutch Objective 1 regions which present high level of activity rate. In terms of evolution between 1990 and 1997, Ireland seems to be the only Objective 1 region which really succeeded its economic recovery.





4. Results

In this section, we propose some economic indicators of the degree of flexibility of the labour market.

As we mentioned in the introduction, the concept of flexibility may have different aspects. We will firstly consider flexibility in terms of labour contracts and we will present the share of part-time employment in the different regions.

4.1 *Part-time employment*

The following table presents the share of part-time employment in 1995 in the different European regions we selected in section 3.

For each country, we sorted the regions by ascending share of part-time employment. We also present the share of women part-time employment (Objective 1 regions in bold characters)

As we can see in that table, Objective 1 regions present low level of part-time employment. Even in countries where part-time jobs are widely used, as in Netherlands, Objective 1 regions are characterised by a lower level of part-time employment compared to the other regions of those countries.

This particular fact can be related to insider-outsider theory. If we consider part-time employment as a proxy of new employment contracts introduced in Europe during the nineties associated with higher flexibility (short term or temporary contracts), the fact that Objective 1 regions present lower level of such contracts may be explained by a lower creation rate of new jobs in those regions due to insider powers embodied for example in high firing costs.

Such an assumption could be confirmed in our econometrics analysis if we could verify, for example, that long term elasticity of employment with regard to economic growth is lower in Objective 1 regions.

But before presenting those results, section 4.2. will present an over indicator of another aspect of the flexibility degree of the labour force.

Country	Regions	Part-time	Country	Regions	Part-time
Belgium	Be1	12,1 (22,7)	France	Fr1	11,7 (19,7)
	Be32	12,5 (27,5)		Fr24	13,7 (26,7)
	Be25	12,6 (28,5)		Fr22	14,7 (28,2)
	Be21	12,9 (30,0)		Fr23	15,0 (27,8)
	Be31	13,2 (27,2)		Fr3	15,1 (30,0)
	Be23	13,7 (29,1)		Fr42	15,6 (30,8)
	Be35	14,1 (29,8)		Fr41	15,7 (32,6)
	Be22	14,4 (34,6)		Fr82	16,0 (29,9)
	Be34	14,6 (34,1)		Fr21	16,0 (32,7)
	Be24	14,7 (32,0)		Fr43	16,1 (32,6)
Be33	16,6 (35,0)	Fr26	16,3 (31,0)		
Denmark	Dk	21,6 (35,4)	Fr83	16,3 (28,7)	
Germany	Dee	8,0 (16,4)	Fr25	16,7 (29,8)	
	De4	9,6 (18,4)	Fr53	16,8 (32,2)	
	Deg	10,9 (20,9)	Fr61	17,0 (30,6)	
	De8	11,1 (20,0)	Fr71	17,2 (33,1)	
	Ded	11,2 (21,5)	Fr72	17,4 (31,1)	
	Dec	14,9 (36,0)	Fr63	17,5 (30,3)	
	De3	15,7 (26,2)	Fr62	17,6 (31,5)	
	Dea	16,0 (35,3)	Fr52	18,3 (32,8)	
	De6	16,7 (30,6)	Fr51	18,8 (35,7)	
	Deb	16,8 (38,2)	Fr81	21,4 (39,2)	
	De7	17,9 (37,0)	Ireland	ie	12,1(23,1)
	De2	18,6 (38,1)	Italy	It71	3,2 (5,8)
	Def	18,6 (38,5)		It8	3,9 (6,5)
	De5	18,7 (37,8)		Ita	5,1 (9,0)
De1	18,7 (38,8)	Itb		5,4 (10,8)	
De9	18,8 (41,2)	It53		5,4 (10,8)	
Greece	Gr42	2,8 (5,6)		It6	6,1 (11,9)
	Gr3	3,3 (6,0)		It11	6,3 (11,7)
	Gr23	4,4 (6,7)		It91	6,5 (11,1)
	Gr12	4,4 (8,0)		It13	6,5 (12,5)
	Gr41	5,3 (11,6)		It92	6,7 (11,4)
	Gr11	5,4 (8,1)		It2	6,7 (13,9)
	Gr24	5,5 (10,4)		It32	6,8 (15,6)
	Gr13	5,7 (8,9)		It33	6,9 (14,6)
	Gr21	5,9 (10,0)		It12	7,0 (13,0)
	Gr14	6,8 (13,5)	It4	7,3 (13,9)	
	Gr22	7,1 (11,2)	It72	7,3 (13,1)	
	Gr43	7,6 (12,2)	It51	7,5 (14,8)	
	Gr25	9,1 (15,1)	It52	7,8 (13,3)	
	Spain	Es3	4,3 (9,0)	It93	7,9 (13,5)
Es12		4,3 (10,6)	It31	9,1 (20,2)	
Es23		4,7 (12,3)	Luxembourg	Lu	7,9 (20,2)
Es13		5,0 (11,1)	Netherlands	N123	33,8 (66,7)
Es53		6,4 (12,4)		N133	35,2 (63,9)
Es43		6,7 (17,1)		N142	35,7 (66,3)
Es42		6,7 (17,5)		N141	35,8 (67,4)
Es62		7,2 (17,7)		N121	37,2 (70,7)
Es63		7,7 (20,2)		N122	37,7 (69,5)
Es11		7,7 (13,4)		N132	38,3 (64,5)
Es61		7,8 (17,6)		N113	39,0 (70,6)
Es51		8,0 (17,8)		N134	39,5 (76,7)
Es41		8,0 (20,5)		N112	39,8 (76,5)
Es22		8,3 (19,8)		N131	41,0 (68,0)
Es21		8,4 (20,2)	N111	41,8 (69,9)	
Es24		8,7 (21,3)			
Es7	9,5 (18,1)				
Es52	10,4 (22,8)				
Portugal	Pt15	5,0 (7,7)			
	Pt13	6,4 (10,8)			
	Pt2	6,5 (11,1)			
	Pt11	6,7 (10,1)			
	Pt14	9,0 (15,4)			
	Pt12	10,8 (14,3)			
	Pt3	11,6 (23,7)			

4.2 Inter-regional Migration rate

In the following table, we present the 1995 inter-regional migration rate.

Country	Regions	Part-time	Country	Regions	Part-time
Belgium	Be22	0,64	France (mean level of 1982-1989)	Fr42	0,09
	Be33	0,65		Fr71	0,10
	Be25	0,67		Fr62	0,11
	Be21	0,71		Fr61	0,11
	Be23	0,73		Fr3	0,11
	Be32	1,06		Fr52	0,12
	Be34	1,50		Fr82	0,12
	Be35	2,04		Fr51	0,12
	Be24	2,10		Fr81	0,13
	Be1	3,11		Fr72	0,13
Germany (in 1993)	Be31	3,34	Fr63	0,14	
	Dea	0,77	Fr43	0,14	
	De2	0,84	Fr53	0,15	
	De1	1,16	Fr41	0,15	
	Ded	1,18	Fr23	0,15	
	Dec	1,22	Fr25	0,15	
	Deg	1,30	Fr83	0,15	
	De9	1,31	Fr24	0,16	
	Dee	1,32	Fr26	0,16	
	De7	1,44	Fr21	0,17	
	Deb	1,44	Fr22	0,17	
	De8	1,65	Fr1	0,19	
	De3	1,68	Italy	It32	0,28
	De4	1,77		It31	0,32
Def	2,47	It53		0,36	
De6	2,78	It51		0,37	
De5	3,22	It4		0,37	
Spain (in 1994)	Es51	0,36		It33	0,41
	Es11	0,37		It52	0,46
	Es12	0,43		It2	0,46
	Es21	0,44		Itb	0,49
	Es61	0,45		It6	0,49
	Es52	0,59	It71	0,50	
	Es24	0,64	It11	0,55	
	Es3	0,67	Ita	0,55	
	Es41	0,72	It8	0,58	
	Es13	0,77	It91	0,62	
	Es62	0,82	It72	0,74	
	Es7	0,86	It13	0,74	
	Es43	0,95	It92	0,79	
	Es22	0,95	It12	0,83	
	Es23	1,07	It93	0,91	
	Es53	1,23	Netherlands	Ni42	1,08
Es42	1,23	Ni41		1,17	
Es63	2,20	Ni33		1,29	
Portugal (in 1992)	Pt11	0,09		Ni32	1,52
	Pt3	0,32		Ni34	1,65
	Pt13	0,32		Ni22	1,72
	Pt12	0,50		Ni12	1,75
	Pt2	0,59		Ni21	1,84
	Pt15	0,82		Ni31	2,45
Pt14	1,02	Ni13		2,49	
		Ni11	2,60		
		Ni23	3,27		

Analysing those data, we have to keep in mind the fact that we do not take into consideration international migration which could higher the migration rate.

The population in Objective 1 regions seems to be in general more mobile and other regions (when comparing Objective 1 regions of country i to the other regions of this country). This particular fact can of course be explained by the low level of GDP per capita in those regions which is of course a strong incentive to migration but it can also be related to the insider-outsider argument.

If we consider that migrants are unemployed moving to get a job in an other region, the higher migration rate of Objective 1 regions could be due to the same argument mentioned in section 4.1. Due to higher insider power, fewer jobs are created in those regions compared to others, so unemployed individuals have to migrate to find a job.

4.3 *Speed of adjustment and long term elasticity of employment*

Finally, we present the estimation results of equation (6) obtained using two sub-sample of the one presented in section 3.

First, we estimated equation (6), using Least Squares with Dummy Variables estimation technics (panel estimation with fixed effects) on the sub-sample of non Objective 1 regions and we compare these results to those obtained estimating this equation on the sub-sample of Objective 1 regions. Both results are presented in the following table.

Non Objective 1 Regions			Objective 1 Regions		
Variable	Coefficient	Std-Error	Variable	Coefficient	Std-Error
Ln L_{t-1}	0.66459	0.02792	Ln L_{t-1}	0.61022	.03648
Ln VA_t	0.25225	0.02796	Ln VA_t	0.13570	.04905
Ln W_t	-0.26113	0.04627	Ln W_t	-0.22131	.07818
+ 73 regional dummy variables			+ 49 regional dummy variables		
$R^2 = 0.99934$			$R^2 = 0.99788$		
F-stat = 8180.5			F-stat = 1326.9		

As we can see, there seems to be no significant difference in terms of speed of adjustment between Objective 1 and non Objective 1 regions (0.61022 versus 0.66459) and

in terms of labour demand elasticity with regard to wages (-0.22131 versus -0.26113 in the short term, -0,56778 versus -0,77854 in the long term) especially in the short run.

The major difference appears in terms of labour demand elasticity with regard to value added. (0.13570 versus 0.25225 in the short term, 0,34815 versus 0,75206 in the long term).

This means that economic growth creates less employment in Objective 1 regions compared to others (the long term labour demand elasticity with regard to economic growth is twice as large in non Objective 1 regions compared to regions that benefits of Structural European funds). But this difference is not caused by adjustment speed or by a different degree of flexibility in the labour market. This result does not seem to confirm the assumption made in section 4.1. (stronger insider power in these regions which express itself in an higher protection against unemployment during recession but lower employment creation during economic recovery) and could be more related to difference in production structure.

If this assumption is confirmed, the smaller rate of flexible contracts observed in section 4.1. is not caused by high insiders power but by small job creation rates due to production structure.

Secondly, we estimated equation (6) assuming region specific random effects, using GMM estimation techniques applied to dynamic panel data (Arellano and Bond (1991)) on the same sub-samples. Those results are presented in the following table.

Non Objective 1 Regions			Objective 1 Regions		
Variable	Coefficient	Std-Error	Variable	Coefficient	Std-Error
Ln L_{t-1}	0.69421	0.00554	Ln L_{t-1}	0.57851	0.01111
Ln VA_t	0.48688	0.00530	Ln VA_t	0.24777	0.02400
Ln W_t	-0.39299	0.00705	Ln W_t	-0.24686	0.02427
Instrumental variables : level values of employment and output in t-2, t-3, ..., first differentiated values of wages in t and t-1			Instrumental variables : level values of employment and output in t-2, t-3, ..., first differentiated values of wages in t and t-1		
Sargan test: $\text{Chi}^2(109) = 71.03 [0.998]$			Sargan test: $\text{Chi}^2(109) = 47.36 [1.000]$		

As we can see, using GMM estimation technics, we obtain a significantly higher speed of adjustment in the Objective 1 regions but the short term and long term elasticity of labour demand with regard to either wages or output are still lower in those regions (0,24777

versus 0.48688 and -0.24686 versus -0.39299 in the short run, 0,58784 versus 1,59220 and -0,58568 versus -1,28516 in the long run).

In terms of flexibility of the labour market, this last result does not indicate lower flexibility in Objective 1 regions.

5. Conclusion

Objective 1 Regions present some characteristics consistent with a low level of flexibility of the labour market, especially the smaller spread of new labour contracts such as part-time employment compared to other European regions.

This particular fact is indeed consistent with the assumption of a high level of insider power associated with high level of labour demand adjustment costs (especially high level of firing costs) which protect actual workers from unemployment but reduce new jobs creation in case of economic recovery.

In fact, we analysing employment adjustment this assumption is not supported. Estimations of labour demand adjustment parameter of equation (6) for Objective 1 regions are not significantly different from those obtained for non Objective 1 regions. The main difference appears when we compare short and long-term labour demand elasticity with regard to output. Economic growth seems to be less employment creative in Objective 1 regions, that may be more related to differences in terms of economic structure than of differences in terms of flexibility of the labour market.

6. References

- Arellano, M., and Bond, S (1991), “ *Some Tests of Specification of Panel Data : Monte Carlo Evidence and an Application to Employment Equations* ”, **Review of Economic Studies**, Vol. 58, pp. 277-94
- Arellano, M., Bond, S. and Doornik, J.A. (1997), “ *Dynamic Panel Data estimation using DPD for OX* ”, Oxford: www.nuff.ox.ac.uk/Users/Doornik.
- Burgess, S., Dolado, J. , (1989), “ *Intertemporal Rules With Variable Speed of Adjustment : an Application to UK Manufacturing Employment*”», *The Economic Journal*, 99, pp 347-365
- Burgess, S., Knetter, M. , (1996) “ *An International Comparison of Employment Adjustment to Exchange Rate Fluctuations*”, NBER Working Paper #5861
- de Falleur, M., Dhyne, E., Mahy, B., Vandeville, V., “ *Estimation of the Relation Between Deregulation and Unemployment using OECD Panel Data*”, EALE meeting, Chania
- Devine, T., Kiefer, N. , (1991), “**Empirical Labor Economics**”, Oxford University Press
- Felstead, A., Jewson, N. (editors), (1999), “Global Trends in Flexible Labour”, MacMillan
- Hamermesh, D., (1993), “**Labor Demand**”, Princeton University Press
- László M. and Sevestre, P. (Editors) (1996), “ *The Econometrics of Panel Data : A Handbook of the Theory with Applications* ”, **Kluwer Academic Publishers**
- Layard, R., Nickell, S., Jackman, R. , (1991), “**Unemployment : Macroeconomic Performance and the Labour Market**”, Oxford University Press
- Reiner, M., (1998), “**Regional Policy in the European Union**”, CEPS Paperback
- Saint-Paul, G., (1996), “**Dual Labour Market**”, M.I.T. Press

Data sources

Eurostat, Regio
DG2, AMECO