Employment and Policies in Europe: a Regional Perspective

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1. Introduction[*]

The aim of the paper is to compare the employment performance at different levels of "regional" (dis)aggregation and to analyse the effectiveness of the European Employment Strategy in favouring net job creation and employment performance convergence.

In the first part, the (quantitative) differences in "regional" labour market performances are highlighted and briefly discussed. In particular, using the main employment indicators, we compare the United States and the European Union, Mediterranean and non-Mediterranean EU countries, "old" and "new" EU members, the Italian macro-Regions, Regions, Provinces and, finally, some local labour systems.

In the second part, the characteristics (method, instruments and final goals) and effectiveness of the European Employment Strategy (a complex "open method of co-ordination" of employment policies) are briefly analysed.

2. Comparison of the Employment Performance at Different Levels of "Regional" (Dis)Aggregation

The difficulties of defining a "regional" perspective are briefly discussed before presenting the empirical analysis at different levels of (dis)aggregation.

The comparative analysis of the labour market performance was conducted using the three quantitative objectives of the European Employment Strategy defined at the Councils of Lisbon (2000) and Stockholm (2001) as statistical indicators: (1) total employment rate (= total employment x 100 / working age population[1]); (2) female employment rate (= female employment x 100 / female working age population); and (3) older worker employment rate (= employed persons from 55 to 64 years old x 100 / population between 55 and 64 years old).

The use of the employment indicators in the comparative analysis is preferable with respect to unemployment indicators[2] for many reasons: (i) difficulties and differences in defining an unemployed condition; (ii) dependence of the unemployment rate on the rate of participation and of

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[1] The working age population is considered as the population between 15 and 64 years old.

the latter on the employment rate. In particular, the compared evidence shows that similar unemployment rates are compatible with significant differences in employment rates[3].

2.1. Difficulties Defining a "Regional" Perspective

A "regional" dimension is characterised by extreme variations in the levels of possible (dis)aggregations and is generally used for comparative analysis between the considered areas.

In order to highlight the potential importance of the level(s) of (dis)aggregation, we have designated five possible levels: A (the highest aggregation), B, C, D and E (the lowest aggregation). Then, with reference to one or more performance variable(s) and considering the possibility that a certain set of units ("regions") has a "high" (H) or a "low" (L) differentiation[4], we discuss a few particular cases (Table 1), arising from the empirical analysis (ex-post) and unknown ex-ante. In case 1, the degree of "regional" differentiation is not significant at any of the levels of aggregation; in case 2 the degree of "regional" differentiation is only significant at one level (level A); in case 3 the degree of "regional" differentiation is significant at more levels (levels B, C, D and E); and in case 4 the degree of "regional" differentiation is significant at every level of (dis)aggregation (A, B, C, D and E).

Table 1 – Some particular cases of multilevel regional differentiation

	Level A NUTS 0 (EU countries)	Level B NUTS I (Macro-regions)	**Level C** NUTS II (Regions)	**Level D** NUTS III (Provinces)	Level E NUTS IV (Local labour systems)
Case 1	L	L	L	L	L
Case 2	H	L	L	L	L
Case 3	L	H	H	H	H
Case 4	H	H	H	H	H
……..	…..	…..	…..	…..	…..

Notes: H = high differences; L = low differences.
     The levels of aggregation that can be levels of government are highlighted in **bold**.
     Nuts 0, I, II and III are the statistical regions defined by the European Union and largely corresponding to institutional (government) levels.

Obviously, with one or more "regional" levels that differ significantly there are important methodological implications and the empirical results depend strongly on the level of analysis chosen. For example, in case 2, we find a "regional" differentiation only if the empirical analysis was carried out at the level of (dis)aggregation A; as for the other levels of (dis)aggregation, the results show that there are no "regional" differences. In case 3, if the empirical analysis was conducted at level A, we do not find significant "regional" differences, but performance differences exist at the other levels of (dis)aggregation. Finally, in case 4 it is useful to consider all the different

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[2] The unemployment rate is calculated as follows: n° unemployed x 100 / labour force; with labour force = employment + unemployment.

[3] Besides, considering the importance of the fiscal wedge on labour (social contributions and labour income tax), the total employment rates are also relevant indicators of the sustainability of the national welfare systems.

levels of (dis)aggregation for a comparative analysis that takes into account the complex multilevel regional differentiation. So, the results and the policy implications (governance) of a comparative ("regional") analysis strongly depend on the level(s) of (dis)aggregation considered. Besides, there is a potential risk in choosing just one level of (dis)aggregation and the need for a multi-level comparative investigation arises. A large part of the existing literature that compare the labour market performance only considers one (ad hoc) "regional" level of analysis. In this paper we compare the employment performance at different levels of "regional" (dis)aggregation (groups of countries, national, regional, provincial and local levels), as highlighted in Table 2.

Table 2 – Different levels of comparative empirical analysis

Level of (dis)aggregation (increasing order)	
International macro-areas	the European Union (EU) *versus* the United States
	Mediterranean EU members *versus* non-Mediterranean EU members
National level	"old" and "new" EU countries
	Mediterranean EU members
Italian sub-national levels	Italian macro-Regions
	Italian Regions
	Italian Provinces
	Local labour systems in Umbria Region

2.2. International Macro-areas

Many empirical analyses compare the labour market performance of large international macro-areas. Here we briefly compare the European Union versus the United States and Mediterranean versus non-Mediterranean EU countries.

As is well-known, the empirical evidence highlights the existence of significant gaps between the United States and the European Union[5] with respect to employment performance. A part of the empirical and theoretical literature has used the term "eurosclerosis" to describe the lower level of employment and net job creation in the European Union[6].

Table 3 - Employment rates in the European Union and the United States (2000)

	Total Employment rate	Female Employment rate	55-64 Employment rate
European Union (15)	64	54	39
United States	74	68	58
coefficient of variation	0.10	0.16	0.28

Source: OECD – Employment Outlook (2002).
Notes: Total Employment rate = employment x 100 / working age population 15-64.
        Female Employment rate = female employment x 100 / female working age population.
        Older worker Employment rate = 55-64 employment x 100 / 55-64 population.

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[4] Obviously, the distinction in two possible situations (high or low) is for simplify the theoretical analysis.

[5] A compared view of employment performance in US and EU is proposed, for example, in Sapir (2004).

[6] The existence of labour market rigidities is considered one of the main causes of the inadequate employment performance in European Union.

Notice that, at this level of aggregation, Europe is considered as one "region", without the possibility of considering (eventual) differences between (and within) countries.

Some authors[7] have distinguished the European countries into Mediterranean and non-Mediterranean countries, in order to investigate the existence of a particular Mediterranean labour market model (structure and performance). The main employment data are presented in Table 4, using the usual three indicators and distinguishing between "old" and "new" (non-)Mediterranean EU countries[8].

Table 4 - Employment rates in Mediterranean and non-Med. EU members (2003)

	Total Employment rate	Female Employment rate	55-64 Employment rate
Mediterranean "old" EU countries: (Italy, France, Spain, Portugal and Greece)	60.7 coeff. of var.= 0.07	50.0 coeff. of var.= 0.16	40.3 coeff. of var.= 0.19
Non-Mediterranean "old" EU countries: (Denmark, Netherlands, Sweden, United Kingdom, Finland, Austria, Germany, Ireland, Luxemburg and Belgium)	68.3 coeff. of var.= 0.07	61.9 coeff. of var.= 0.12	45.5 coeff. of var.= 0.30
Mediterranean "new" EU countries: (Cyprus, Malta and Slovenia)	62.1 coeff. of var.= 0.12	50.5 coeff. of var.= 0.29	34.7 coeff. of var.= 0.40
non-Mediterranean "new" EU countries: (Estonia, Latvia, Lithuania, Poland, Czech Republic, Slovak Republic and Hungary)	59.5 coeff. of var.= 0.08	54.4 coeff. of var.= 0.09	37.7 coeff. of var.= 0.29

Source: elaboration on Eurostat data (2004).

Notice that the well-known negative employment gap of the Mediterranean EU countries versus non-Mediterranean EU members is not true considering the total employment rate of the new EU members.

Obviously, the above arbitrary aggregations[9] can mask marked employment differences at the national level of analysis.

2.3. National Level of Comparison

The national level of analysis was conducted distinguishing between the "old" and "new" EU members[10], with particular attention directed toward the Mediterranean EU countries.

Considering the main "Lisbon objective", only four countries of the EU-15 have reached a total employment rate higher than 70% (Denmark, Netherlands, Sweden and the United Kingdom);

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[7] See, for example, Bettio - Villa (1995).

[8] Ten new countries entered the European Union in May 2004 (Estonia, Latvia, Lithuania, Poland, the Czech Republic, the Slovak Republic, Hungary, Slovenia, Cyprus and Malta).

[9] In particular, we decide to include Portugal and Slovenia between the Mediterranean EU countries.

while eight countries (four of the EU-15 and four "new" EU members) have an employment rate (ER) lower than 60% (Spain, Belgium, Greece, the Slovak Republic, Hungary, Italy, Malta and Poland). The remaining countries (seven of the EU-15 and seven "new" members) show an ER between 60 and 70%. As regards the second "Lisbon objective", eight countries of the EU-15 plus Cyprus have a female employment rate higher than 60% (Sweden, Denmark, The Netherlands, Finland, the United Kingdom, Austria, Portugal and Cyprus), while five countries (three of the EU-15 and two "new" EU members) show a female ER lower than 50% (Spain, Poland, Greece, Italy and Malta). The remaining countries have a female ER between 50 and 60%. Considering the third European goal, defined at the Stockholm Council, only six countries (four of the EU-15 and two "new" EU members) have an employment rate for older workers (55-64) higher than 50% (Sweden, Denmark, the United Kingdom, Estonia, Portugal and Cyprus), while six countries (two of the EU-15 and four "new" EU members) show a 55-64 ER lower than 30% (Luxembourg, Hungary, Belgium, Poland, the Slovak Republic and Slovenia). Five countries have a 55-64 ER between 30 and 40%, while the remaining has an older worker ER between 40 and 50%.

Table 5 – Employment rates in the EU-25 (rankings 2003)

Total Employment rate		Female Employment rate		55-64 Employment rate	
Denmark	75.1	Sweden	71.5	Sweden	68.6
Netherlands	73.5	Denmark	70.5	Denmark	60.2
Sweden	72.9	Netherlands	65.8	United Kingdom	55.5
United Kingdom	71.8	Finland	65.7	Estonia	52.3
Austria	69.2	United Kingdom	65.3	**Portugal**	**51.1**
Cyprus	**69.2**	Austria	62.8	**Cyprus**	**50.4**
Finland	67.7	**Portugal**	**60.6**	Finland	49.6
Portugal	**67.2**	**Cyprus**	**60.4**	Ireland	49.0
Ireland	65.4	Estonia	59.0	Netherlands	44.8
Germany	64.8	Germany	58.8	Lithuania	44.7
Czech Republic	64.7	Lithuania	58.4	Latvia	44.1
Luxemburg	63.1	Latvia	57.9	**Greece**	**42.3**
Estonia	62.9	**Slovenia**	**57.6**	Czech Republic	42.3
France	**62.8**	**France**	**56.7**	**Spain**	**40.8**
Slovenia	**62.6**	Czech Republic	56.3	Germany	39.3
Latvia	61.8	Ireland	55.8	**France**	**36.8**
Lithuania	61.1	Slovak Republic	52.2	Austria	30.4
Spain	**59.7**	Belgium	51.8	**Italy**	**30.3**
Belgium	59.6	Hungary	50.9	**Malta**	**30.3**
Greece	**57.9**	Luxembourg	50.8	Luxembourg	29.5
Slovak Republic	57.7	**Spain**	**46.0**	Hungary	28.9
Hungary	57.0	Poland	46.0	Belgium	28.1
Italy	**56.1**	**Greece**	**43.9**	Poland	26.9
Malta	**54.5**	**Italy**	**42.7**	Slovak Republic	24.5
Poland	51.2	**Malta**	**33.6**	**Slovenia**	**23.5**
Mean EU-25	62.9		55.0		40.2
Coeff. of variation	0.10		0.16		0.29

Source: Eurostat 2004.
Note: The Mediterranean EU members are indicated in **bold**.

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[10] Notice that the EU co-ordination on employment policies is an important part of the Community *aquis*.

A fourth European objective, not defined in precise quantitative terms, regards the reduction of irregular employment in the shadow economy. In the "old" EU members, the size of the shadow economy (as % of GNP) is the lowest in Austria (9.8%) and the highest in Greece (28.7%) and Italy (27.1%), with an EU-15 mean of 18.6. In the "new" EU members the shadow economy is generally higher than in the "old" EU countries, with an average of 26.9%. In particular, the Slovak and Czech Republics have the lowest incidence (18.9% and 19.1%), while the shadow economy is much more relevant in Latvia (39.9%) and Lithuania (30.3%).

Table 6 -   The size (% of GDP) of the shadow economy in the European Union (1999-2000)

"old" EU members		"new" EU members	
Austria	9.8	Slovak Republic	18.9
United Kingdom	12.7	Czech Republic	19.1
Netherlands	13.1	Hungary	25.1
France	15.2	Slovenia	27.1
Ireland	15.9	Poland	27.6
Germany	16.0	Lithuania	30.3
Denmark	18.0	Latvia	39.9
Finland	18.1	Estonia	n.a.
Sweden	19.2	Cyprus	n.a.
Belgium	22.2	Malta	n.a.
Spain	22.7		
Portugal	22.7		
Italy	27.1		
Greece	28.7		
Luxembourg	n.a.		
mean	18.6		26.9
coefficient of variation	0.29		0.27
mean (all countries) 21.4			
coefficient of variation (all countries) 0.33			

Source: Schneider (2003) calculations based on "currency demand approach" (EU-15) and Schneider (2003) calculations based on World Bank data, Washington D.C., 2002 ("new" EU members).
Note: n.a. = not available.

It should be noted (Graph 1) that a significant negative correlation exists between the total (regular) employment rate and the size of the shadow economy. So, the countries with the worst employment performances are characterised by a higher incidence of "irregular employment"[11].

Graph 1 – Relationship between the total employment rate and the size of the shadow economy
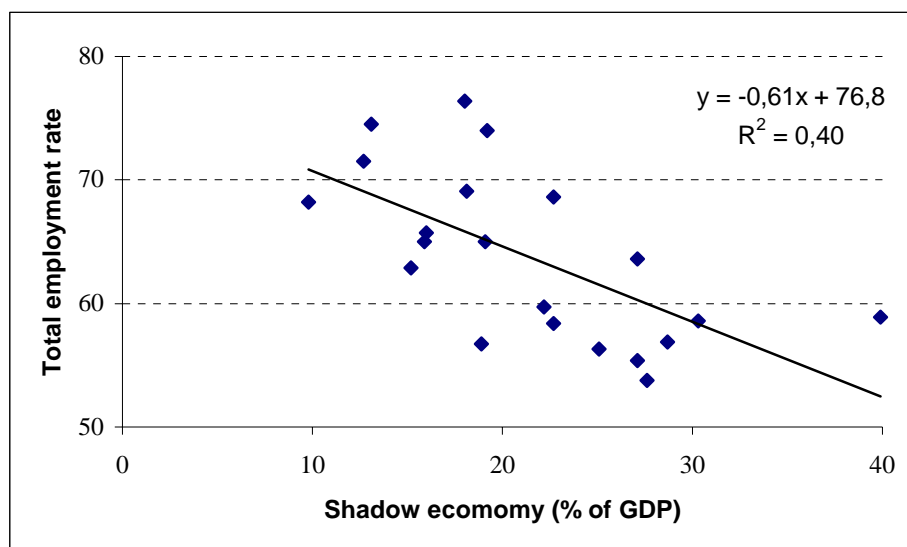
Source: elaboration based on Eurostat (2004) and Schneider (2003) data.

Considering the national level of the Mediterranean EU countries, significant differences arise, especially in female employment rates and "older worker" employment rates. Cyprus and Portugal are at the top of the ranking in all three indicators, with female ER and "older worker" employment rates that are higher than the European objectives. In contrast, Malta and Italy have extremely low employment rates.

Table 7 – Employment rates in Mediterranean EU members (rankings 2003)

Total Employment rate		Female Employment rate		55-64 Employment rate	
Cyprus	69.2	**Portugal**	**60.6**	**Portugal**	**51.1**
Portugal	**67.2**	Cyprus	60.4	Cyprus	50.4
France	**62.8**	Slovenia	57.6	**Greece**	**42.3**
Slovenia	62.6	**France**	**56.7**	**Spain**	**40.8**
Spain	**59.7**	**Spain**	**46.0**	France	36.8
Greece	**57.9**	**Greece**	**43.9**	**Italy**	**30.3**
Italy	**56.1**	**Italy**	**42.7**	Malta	30.3
Malta	54.5	Malta	33.6	Slovenia	23.5
Mean	61.3		50.2		38.2
coefficient of variation	0.08		0.20		0.26

Source: Eurostat, Employment in Europe 2004.
Note: in **bold** are indicated the "old" Mediterranean EU members.

It is of interest to briefly consider the employment rates (for the most numerous nationality groups) of non-EU nationals living in the European Union (15). Notice the significant differences, with the US and Croatia at the top of the ranking and Algeria and Marocco at the bottom (especially considering the female employment rates).

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[11] Employment in illegal activities is excluded from the definition of "irregular employment".

Table 8 – Employment rates of third country nationals (rankings 2002)

Total Employment rates		Female Employment rates	
US	71	Croatia	65
Croatia	68	US	59
Albania	64	Bosnia Herzegovina	57
Bosnia Herzegovina	62	Poland	49
Poland	58	Albania	47
Turkey	47	Russia Federation	39
Russia Federation	43	Turkey	32
Marocco	40	Algeria	22
Algeria	39	Marocco	21
EU nationals	*66*		*59*

Source: Eurostat, LFS (2003).

In conclusion, it should be noted that empirical evidence highlights the existence of huge differences in national employment performances in the European Union. So, the EU cannot be properly considered as just one (homogeneous) "region" (for example, to be compared to the US).

2.4. Italian Sub-National Levels

The national averages can mask remarkable sub-national differences. In this part we briefly consider the Italian sub-national levels of (dis)aggregation: macro-Regions, Regions, Provinces and, briefly, the local labour systems in the Region of Umbria.

A first level of (dis)aggregation distinguishes the country in four macro-regions ("Northwest", "Northeast", "Centre" and "South and Islands"). The employment performance differences are remarkable, especially in the female ER.

Table 9 - Employment rates (ER) in Italian macro-regions (2003)

	Total ER	Female ER	55-64 ER
North-east	65.4	55.1	29.0
North-west	63.2	52.3	26.0
Centre	59.1	46.9	33.4
South and Islands	44.1	27.1	32.8
Coefficient of variation	0.17	0.28	0.11

Source: Istat, Labour Force Survey (2004).

However, the macro-regional level can hide significant differences that arise only with a higher (dis)aggregation. Therefore we have analysed the main employment indicators for the 20 Italian Regions and the 103 Provinces.

As for the main "Lisbon objective", in 2002 all the Regions had an employment rate lower than 70%. In particular, nine Regions (Emilia Romagna, Trentino Alto Adige, Valle d'Aosta, Lombardy, Veneto, The Marches, Piedmont, Friuli Venezia Giulia and Tuscany) had an

employment rate (ER) in the upper part of the ranking (60-70), five regions had an ER between 50 and 60% and, finally, six regions (Sicily, Campania, Calabria, Puglia, Basilicata and Sardinia) had an ER lower than 50%. Considering the second "Lisbon objective", all the Regions had a female employment rate lower than 60%, ranging from a maximum of 59.1% to a minimum of 24.3%). In particular, nine Regions had a female employment rate (FER) in the upper part of the ranking (50-60), four Regions had an ER between 40 and 50%, two Regions had a female ER between 30 and 40% and, finally, five Regions (Campania, Sicily, Calabria, Puglia and Basilicata) had a female ER lower than 30%.

As for the older workers (55-64), it should be noted that the lowest ER was in the Northern Regions (Table 12).

Finally, the Regions with lower (regular) employment rates are generally characterised by higher incidence of irregular employment[12] (Table 13).

Table 10 - Total employment rates in Italian Regions (2002)

ER 40-50%	Sicily (42.2), Campania (42.2), Calabria (42.3), Puglia (45.5), Basilicata (46.3) and Sardinia (47.0).
ER 50-60%	Molise (52.1), Lazio (55.2), Abruzzo (55.8), Liguria (58.5) and Umbria (59.2).
ER 60-70%	Tuscany (61.8), Friuli Venezia Giulia (62.2), Piedmont (62.2), The Marches (63.0), Veneto (63.4), Lombardy (63.4), Valle d'Aosta (66.4), Trentino Alto Adige (66.6) and Emilia Romagna (67.8).
Coefficient of variation = 0.16	

Source: Istat, 2003.

Table 11 - Female employment rates in Italian Regions (2002)

ER < 30%	Campania (24.3), Sicily (24.5), Calabria (26.6), Puglia (27.7) and Basilicata (29.7).
ER 30-40%	Sardinia (31.5) and Molise (37.1).
ER 40-50%	Abruzzo (41.3), Lazio (41.4), Liguria (47.1) and Umbria (48.1).
ER 50-60%	Veneto (50.9), Tuscany (50.9), Piedmont (51.8), Friuli Venezia Giulia (51.9), Lombardy (52.0), The Marches (53.0), Trentino Alto Adige (55.0), Valle d'Aosta (56.5) and Emilia Romagna (59.1).
Coefficient of variation = 0.27	

Source: Istat, 2003.

Table 12 – Older worker (55-64) employment rates in Italian Regions (2003)

ER <25%	Friuli Venezia Giulia (24.2).
ER 25-30%	Lombardy (25.7), Piedmont (26.2), Liguria (27.0), Sardinia (27.3), Veneto (27.8), Valle d'Aosta (29.2) and Umbria (29.5).
ER 30-35%	The Marches (30.1), Trentino Alto Adige (30.6), Basilicata (31.5), Tuscany (31.6), Emilia Romagna (31.6), Sicily (31.7), Puglia (31.8) and Campania (34.4).
IER >35%	Molise (37.2), Lazio (36.3), Calabria (36.1) and Abruzzo (35.8)
	Coefficient of variation = 0.12

Source: Istat (2004).

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[12] In Table 13, the irregular employment is measured in labour units corresponding to the full time employment (for example, two part-time irregular jobs are computed as one irregular labour unit). So, the number of workers involved in "irregular jobs" is much higher than the number of labour units.

Table 13 – Irregular employment rates in Regions (2000)

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IER 10-15%	Emilia Romagna (10.1), Lombardy (10.5), Veneto (11.2), Piedmont (11.2), Trentino Alto Adige (13.0), Tuscany (13.2), Friuli Venezia Giulia (13.2), Liguria (13.3), The Marches (13.8) and Abruzzo (14.1).
IER 15-20%	Valle d'Aosta (15.9), Umbria (16.6), Lazio (17.4), Molise (18.1) and Sardinia (18.3).
IER 20-25%	Puglia (20.0), Basilicata (22.0), Sicily (23.6) and Campania (24.7).
IER more than 25%	Calabria (29.2).
coefficient of variation = 0.32	

Source: Istat, National Account (2002).
Notes: Irregular labour units as % of total labour units.

The empirical evidence at the Regional level can also hide differences arising at a Provincial level of aggregation (Tables A1 and A2 in Appendix). In particular, three Provinces (Bolzano, Ravenna and Reggio Emilia) have reached the main "Lisbon objective" (70%), 16 Provinces (Modena, Forlì, Bologna, Belluno, Siena, Mantova, Aosta, Biella, Cuneo, Novara, Treviso, Parma, Vicenza, Prato, Pordenone and Ferrara) have a total employment rate near the European objective (from 65% to 70%), 36 Provinces have an ER in the 60-65% class and 48 Provinces have an ER lower than 60%. Notice that 20 Provinces have an ER between 50 and 60%; 22 Provinces have an ER in the class 40-50% and, finally, six Provinces have an extremely low ER (lower than 40%).

As illustrated in Figure 1, the Provincial level presents a much more articulated differentiation with respect to the well-known "North-South" dualism.

Figure 1 - Groups of Provinces according to the total employment rate (2002)
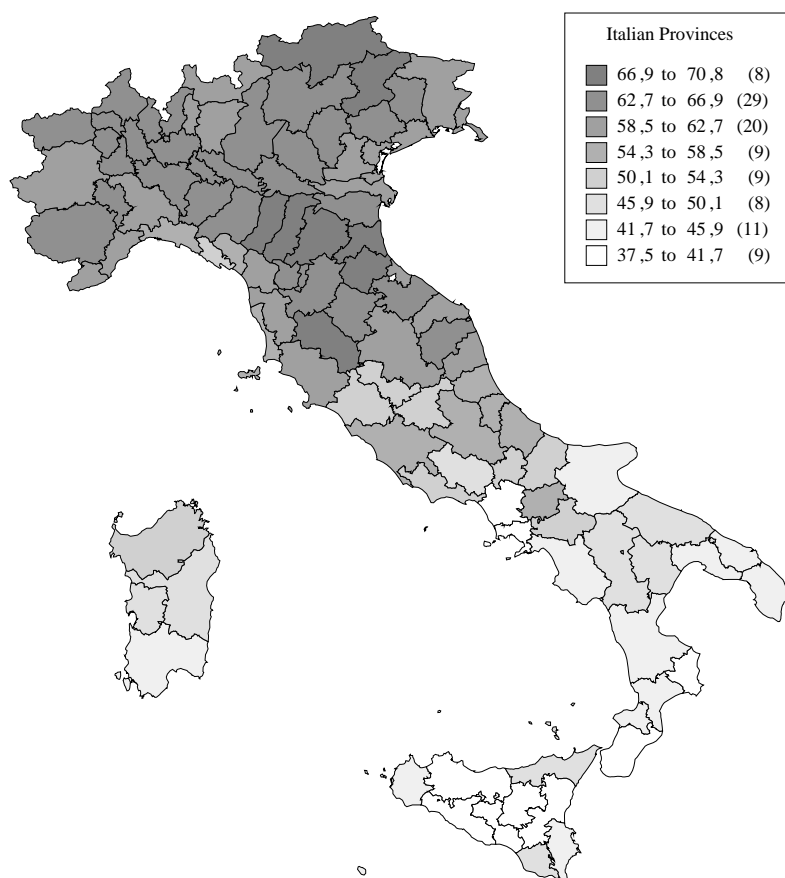
Source: Elaboration on Istat data (2003)

The provincial differences in the female ER (Table A2 in Appendix) are huge, with a maximum of 62.5% (Ravenna) and a minimum of 16.7% (Caltanisetta). In 2002 only six Provinces (Siena, Forlì, Bologna, Modena, Reggio Emilia and Ravenna) had reached the second "Lisbon objective" (more than 60%). Eight other Provinces followed in the 55-60% class and 31 Provinces were in the 50-55% class. It should be noted that 57 Provinces report a female employment rate lower than 50% and, in particular, 22 Provinces have a female ER that is lower than half (30%) of the European objective.

Notice that, the Provincial level of empirical analysis can also be inadequate if significant differences exist at the local level. By introducing the concept of the Local labour system that belongs to the more general category of the "travel-to-work areas" allows the issue of a functional repartition of the Italian territory into local socio-economic systems to be addressed (Istat, 1997). Some studies have highlighted the existence of significant differences in employment performance between the 784 Italian local labour systems, also within the same Province (or Region)[13]. Notice that even considering a small Italian Region, like Umbria[14], it is possible to find significant differences in employment performance among the 16 local labour systems (Table A3 in Appendix). Obviously, the employment performance differences, at the local labour system level, in the larger and southern Regions (and Provinces) are much higher than in the Region of Umbria.

In conclusion, since all the possible levels of "regional" (dis)aggregation show a significant degree of differentiation, the comparative empirical analysis must consider all the levels of (dis)aggregation, in order to derive articulated suggestions for an effective co-ordinated mix of (European, national, regional and local) policy interventions.

2.5. A Synthetic View of the Degrees of Multilevel Regional Differentiation

Here the differences in employment performances are briefly compared considering the variability (range and coefficient of variation) at the various levels of (dis)aggregation previously considered. The ranges (max-min) of employment rates are remarkable at various levels of (dis)aggregation, especially for the female ER (Graph 3), but they are particularly high at the Italian sub-national levels.

The "regional" variability at different levels of (dis)aggregation has been briefly analysed using the coefficient of variation (c.v.)[15]. In general, this index is much higher for female employment rates than for total employment rates (Graph 4), highlighting a lower variability in the

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[13] See, for example, Perugini – Signorelli (2004b). Notice that the distances in the stock indicator (employment rate) can be the result of huge differences in the flow indicators.

[14] The Umbria Region is composed of two Provinces, Perugia (divided into 13 local labour systems) and Terni (divided into three local labour systems).

[15] The coefficient of variation is a "pure number" and is obtained by dividing the standard deviation by the mean.

male employment rates. Notice that, the c.v. for the female employment rate in the Mediterranean EU countries is higher than that reported for the EU-15 and EU-25; the opposite is true for the total employment rates. Finally, the coefficients of variation are particularly high at the Italian sub-national levels, with the exception of the macro-Regional level for the total employment rate.
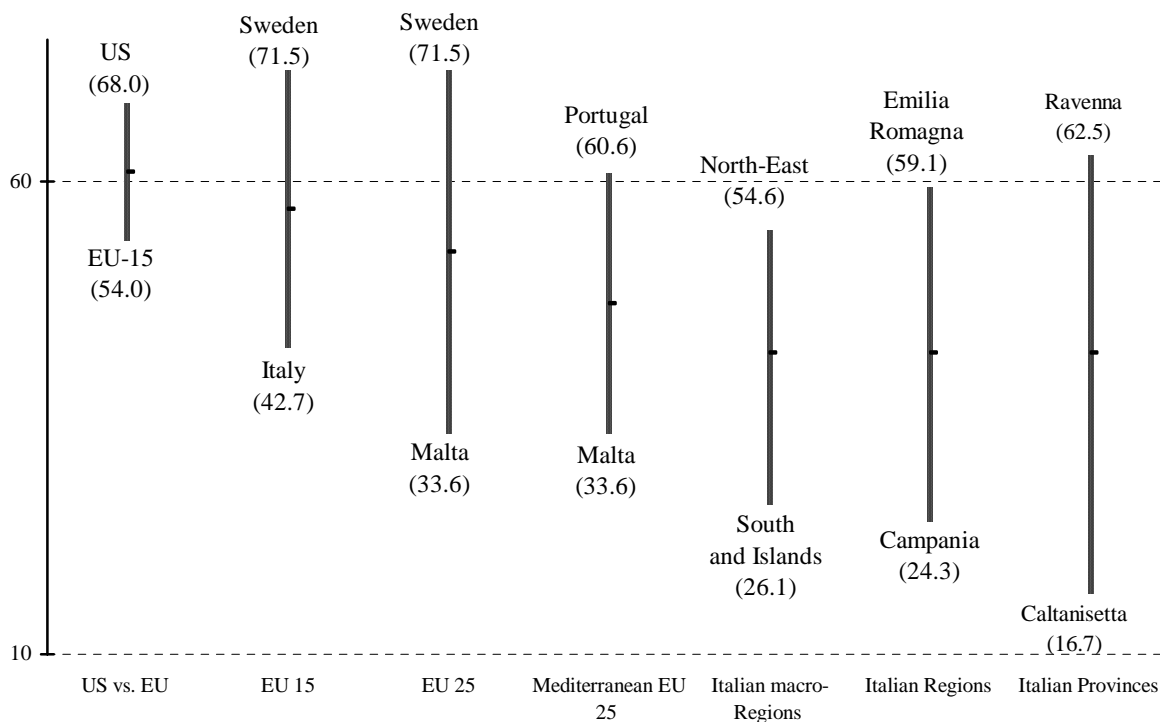
Graph 2 - Range (max-min) of Total employment rates
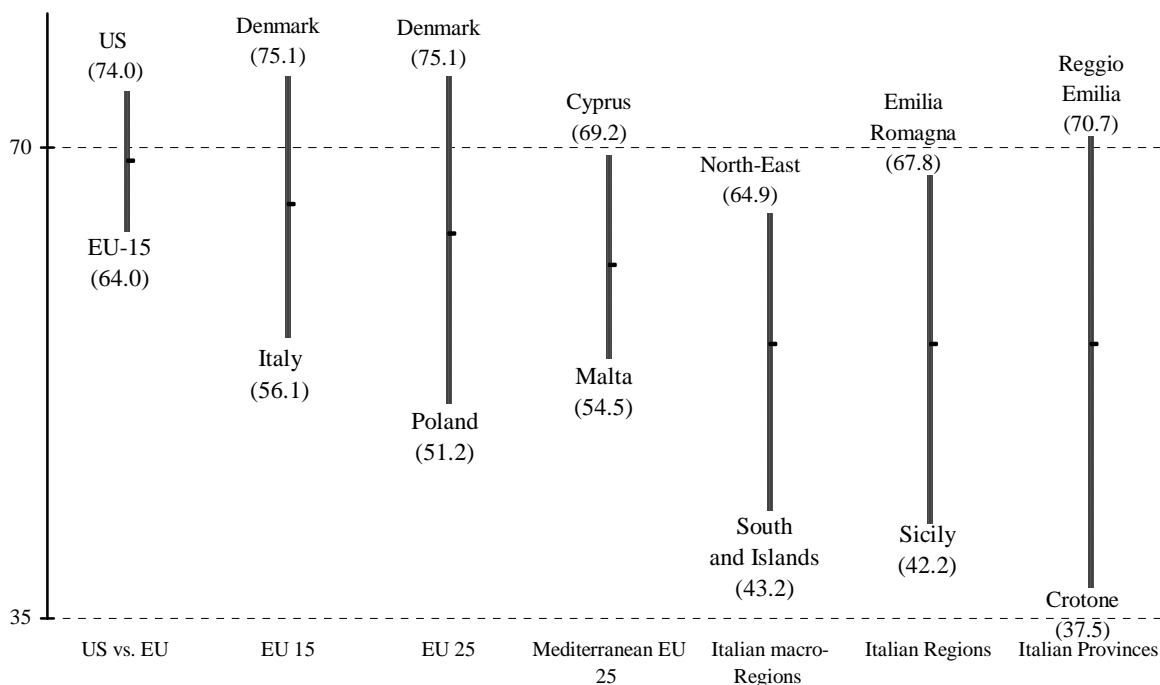
Source: OECD, Eurostat and Istat data.
Note: 2000 for US vs. EU; 2003 for EU-15, EU-25 and Mediterranean EU-25; 2002 for Italian sub-national levels.
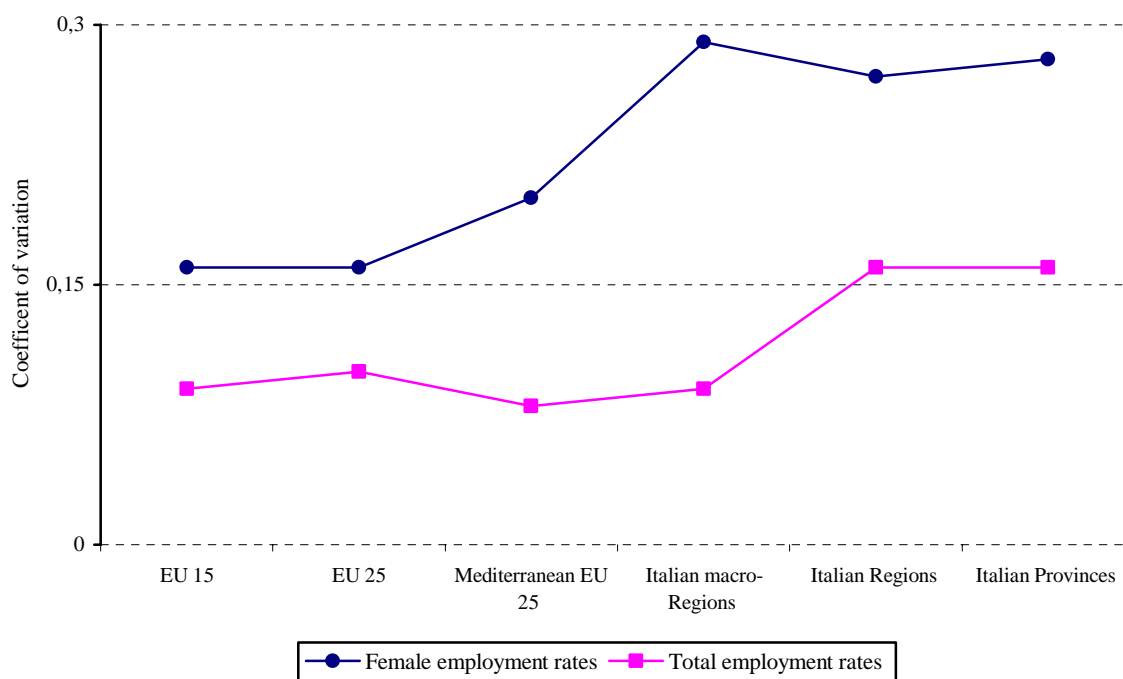
Graph 3 - Range (max-min) of Female employment rates

Source: OECD, Eurostat and Istat data.
Note: 2000 for US vs. EU; 2003 for EU-15, EU-25 and Mediterranean EU-25; 2002 for Italian sub-national levels.

Graph 4 - Coefficient of variations of Total and Female Employment rates

Source: elaboration on OECD, Eurostat and Istat data.
Note: 2003 for EU-15, EU-25 and Mediterranean EU-25; 2002 for Italian sub-national levels.

3. The European Employment Strategy: an Effective Open Method of Co-ordination?

The Luxembourg Job Summit (1997) launched the European Employment Strategy (EES) based on the new provisions in the Employment title of the Amsterdam Treaty. At the Lisbon Council (2000), the European Union set a new strategic goal for the next decade: "*to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion*". The strategy was designed to enable the Union to regain the conditions for full employment[16]. The EES is designed to be the main tool for giving direction to and ensuring the co-ordination of the employment policies of the Member States. In particular, the EES initiated a new working method (the so-called "open method of co-ordination") based on five key principles: (i) subsidiarity, (ii) convergence, (iii) management by objectives, (iv) country surveillance and (v) integrated approach. The co-ordination of the employment policies at the EU level consists of: (i) *Employment Guidelines* of the European Council, following a Commission proposal; (ii) *National Action Plan* (and Regional Action Plan) which describes how the Guidelines are put into practice at the national (and regional) levels; (iii) a *Joint Employment Report* presented by the Commission and the Council examining each National

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[16] The Lisbon Council confirmed the EES and defined two employment goals to be obtained by 2010: (i) an overall EU employment rate of 70% and (ii) a female employment rate higher than 60%. The Stockholm

Action Plan; (iv) *Recommendations* decided by a qualified majority of the Council, in response to a proposal by the Commission, and addressed to all members (general recommendations) and to each country (country-specific recommendations).

The Employment Guidelines are a set of objectives which, until 2003, consisted of four "pillars": (i) employability, (ii) entrepreneurship, (iii) adaptability and (iv) equal opportunities. The 2003 revision of the EES highlighted three "new" general objectives [(i) full employment, as defined in Lisbon and Stockholm ; (ii) quality and productivity at work (employment growth must be accompanied by productivity changes in order to permit real wage increases); and (iii) a cohesive and inclusive labour market (employment is a crucial means to social inclusion)] and ten specific guidelines [(i) active and preventive measures for the unemployed and inactive (for example: job search assistance and personalised action plans); (ii) job creation and entrepreneurship; (iii) address change and promote adaptability and mobility in the labour market (for example: introduce diversity of contractual and working arrangements; favour a better balance between work and private life and between flexibility and security; increase the transparency of employment and training opportunities); (iv) promote development of human capital and lifelong learning; (v) increase labour supply and promote active ageing (for example: make work pay and reform early retirement schemes); (vi) gender equality (for example reconciling work and private life); (vii) promote integration and combat discrimination against disadvantaged people in the labour market; (viii) make work pay through incentives to enhance work attractiveness (for example, reducing the high marginal effective tax rate, especially for low-wage workers); and (ix) transform undeclared work into regular employment; (x) address regional employment disparities. The European Social Fund is the main financial support for the European Employment Strategy. Notice that the EES, and the Employment Guidelines in particular, have increasingly incorporated the local dimension, by inviting member States to involve the regional and local levels. Obviously the governance of EES also depends on the political and constitutional structure of each Member State. However, the implementation of the Strategy calls for the involvement of all relevant actors (member States, Regions, social partners, civil society), in accordance with the wide diversity in national institutional structures and social dialogue practices.

The evaluation of the results of the EES is extremely difficult, but there is some striking evidence for the period 1997-2003: (i) employment (especially permanent employment) significantly increased in the European Union, even in recent years with the extremely low GDP growth rates (the employment/GDP elasticity increased remarkably); (ii) unemployment declined, especially long-term unemployment (the decline of unemployment was lower than the increase of employment due to higher participation in the labour market); (iii) the process information exchange between member States permitted a better evaluation of the transferability of good

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European Council (2001) added a third goal: (iii) an employment rate higher than 50% (by 2010) for older

practices; (iv) since 2000, a better definition of the objectives (total employment rate, female employment rate and older worker employment rate), with a greater emphasis on net employment creation rather than unemployment reductions, has favoured some labour market reforms and better use of many instruments (public and private employment services, life-long learning, wage moderation, etc.).

As for the quantitative employment changes in the period 1997-2002, the significant positive change in each EU member State should be noted, with a 3.6 total ER increase in the European Union (Table 15). Notice that the net employment creation was more than 12 million in five years, with around 10 million new permanent jobs.
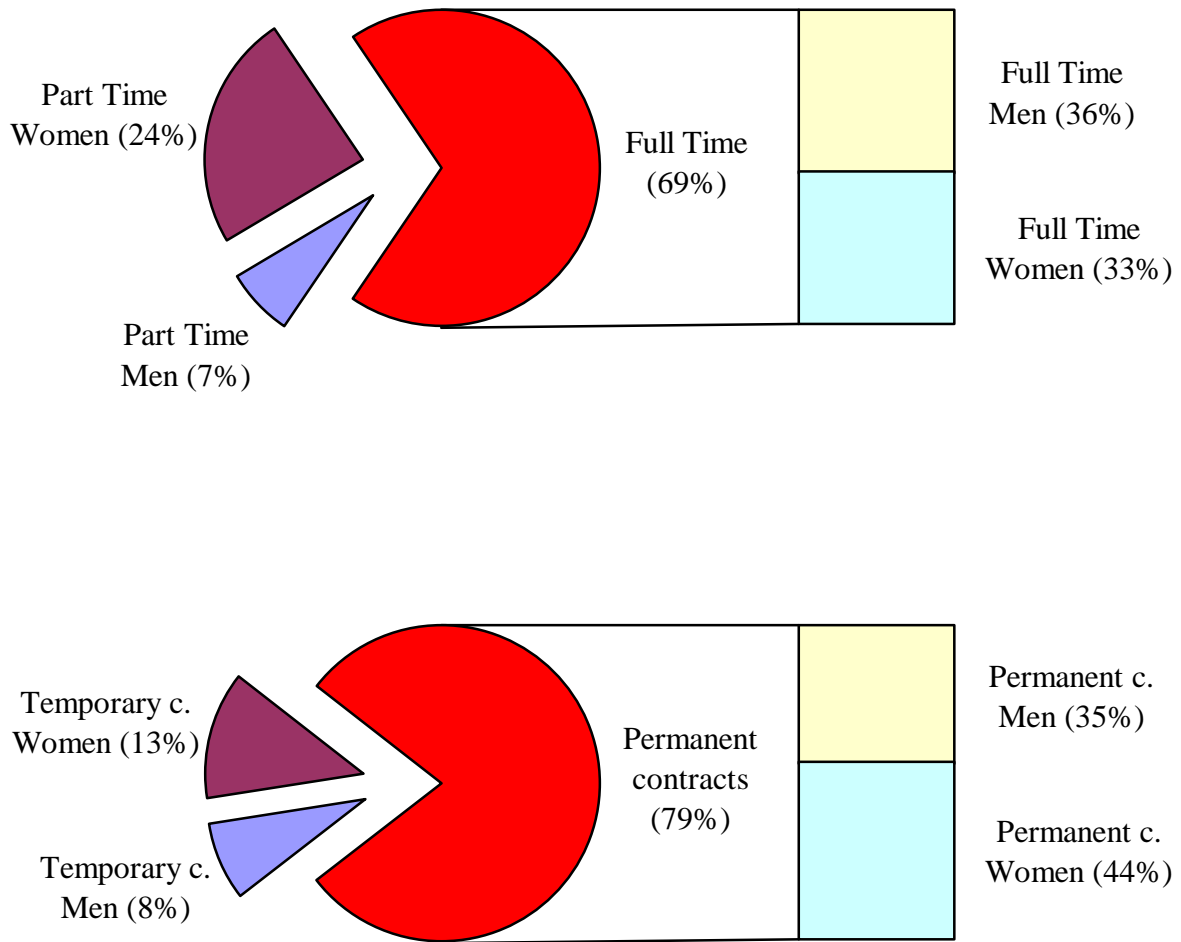
Table 15 - Employment changes (period 1997-2002)

	Changes in total employment rate ER 2002 – ER 1997	Changes in total employment (in thousands)	Changes in permanent employment employees (in thousands)	Changes in temporary employment employees (in thousands)
Spain	+9.1	+3031	+2346	+699
Ireland	+7.8	+349	+287	-30
Netherlands	+5.9	+908	+568	+303
Finland	+4.8	+304	+251	+55
Italy	+4.2	+1451	+1069	+381
Sweden	+4.1	+412	+251	+185
Luxembourg	+3.8	+20	+16	+4
France	+3.5	+2203	+1658	+521
Belgium	+3.0	+249	+188	+61
Portugal	+2.6	+496	+144	+422
United Kingdom	+1.7	+1710	+1972	-182
Germany	+1.7	+763	+746	+194
Greece	+1.6	+266	+228	+38
Austria	+1.5	+119	+122	-4
Denmark	+1.0	+66	+109	-49
European Union 15	+3.6	+12346	+9957	+2598

Source: Employment in Europe, European Commission (2003).

The employment growth during the period 1997-2002 included a 79% increase in permanent contracts (+44% female and +35 male) and 21% increase in temporary jobs (+13% female and +8% male). In addition, the employment creation is divided into +69% full-time contracts (+36% male and +33% female) and + 31% part-time jobs (+24 female and +7 male).

(55-64) workers.

Graph 5 (A and B) – Employment growth composition (period 2002-1997)

Part Time
Women (24%)

Full Time
(69%)

Full Time
Men (36%)

Full Time
Women (33%)

Part Time
Men (7%)

Temporary c.
Women (13%)

Permanent
contracts
(79%)

Permanent c.
Men (35%)

Permanent c.
Women (44%)

Temporary c.
Men (8%)

Source: elaboration on Eurostat data (2003).

It should be noted that a negative relationship exists between the Total employment rates in 1997 and the net job creation[17] in the period 1997-2002. The countries with lower employment rates in 1997 had better performances in the period 1997-2002, causing a convergence process of national employment performances. So, the period 1997-2002 has been extremely positive in terms of both net job creation (in all the EU-15 countries) and employment performance convergence.

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[17] The net job creation in the period 1997-2002 is measured by the difference between the total employment rate (ER) in 2002 and the total ER in 1997.

Graph 6 – Relationship between the initial (1997) Total Employment Rates
and the Net Job Creations (period 2002-1997)
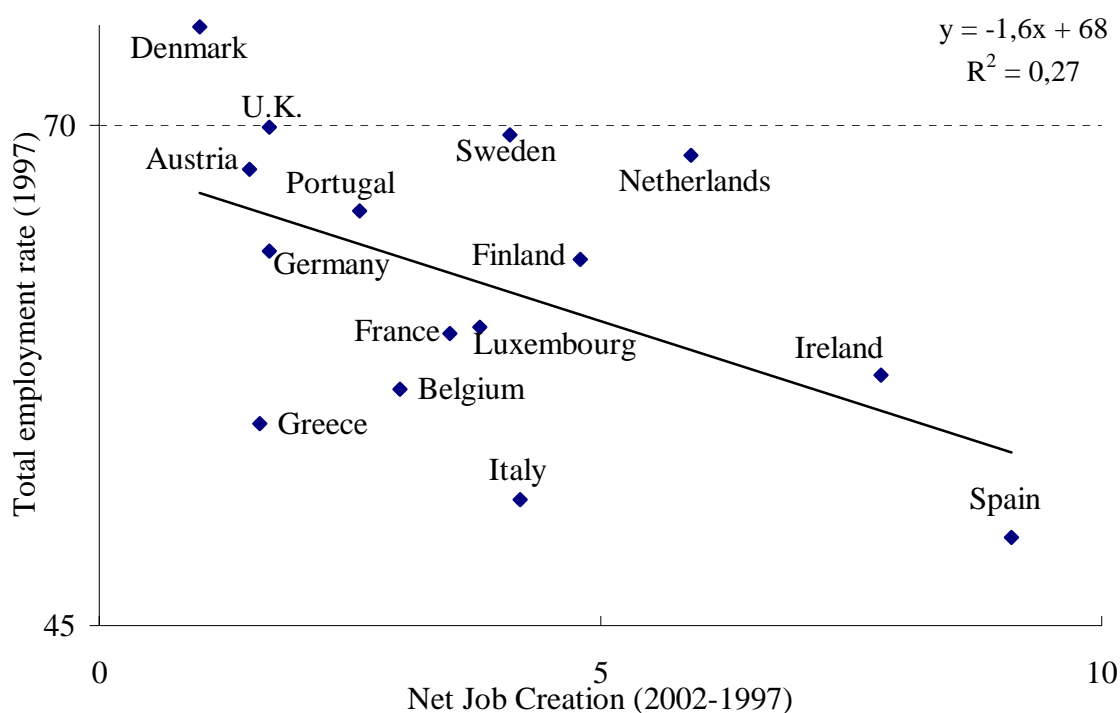
Source: elaboration based on Eurostat (2004) and Schneider (2003) data.

Considering the NUTS II level[18] of (dis)aggregation in the EU-15, we estimate the following regression for 201 Regions in the period 1999-2003[19].

$$\Delta ER_{1999\text{-}2003} = \alpha + \beta ER_{1999} + \varepsilon$$

Table 16 – β convergence of Regional Employment Rates in EU-15 (period 1999-2003): estimates

Dependent variable: ER growth 1999-2003	*Coefficient*	*P-values*
ER$_{1999}$	-0.171	(0.000)
Constant	0.739	(0.000)
Number of Observations: 201 Adjusted R-squared: 0.328 Prob F: 0.0000		

Source: elaboration on Eurostat Regions Database (2004).

The regression exhibits an estimated value of the β coefficient which is negative and significant, implying a convergence dynamic in total employment rate in the 201 European Regions. So, the

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[18] As for Italy, this level corresponds to the 20 Regions.
[19] See, Perugini and Signorelli (2004c). In the period 1999-2003 the regional (NUTS II level) data are comparable.

EU-15 Regions with the lower total employment rate in 1999 performed better in the period 1999-2003.

We argue that the European Employment Strategy, which favours a multilevel governance that is aware of the extreme differences at the different levels of "regional" (dis)aggregations, has contributed positively to the net job creation and employment performance convergence in the EU countries and (NUTS II) Regions.

3. Some Policy Implications

The existence of more than one "regional" level of significant differentiation has important methodological consequences. In particular, the empirical results (and policy implications) are very dependent on the level(s) of analysis chosen.

A comparative multilevel "regional" analysis provides crucial information for defining an effective governance of employment policies. In particular, because the differences in employment performance are significant at many levels of (dis)aggregation, as highlighted for the EU members and, especially, at the Italian sub-national levels, the policy implications clearly favour a governance based on multilevel "regional" employment policies, co-ordinated at the highest level of aggregation (European level) and implemented at the lower levels (national, regional and local), according to the subsidiarity principle[20].

The European Employment Strategy (EES), adopting an "open method of co-ordination"[21], takes into account the significant differences in employment performance at the various "regional" levels of (dis)aggregation. We argue that the remarkable net job creation and employment performance convergence in the EU countries and Regions were partly due to the positive role played by the EES in favouring the creation and implementation of co-ordinated multilevel "regional" employment policies.

Further employment growth in the worst-performing EU countries (and Regions) can be obtained favouring the emersion of irregular labour and the diffusion of part-time contracts. Obviously, improvement and changes in the composition of the European[22] and national/regional budgets will help accelerate the process towards "*more and better jobs*" (European Council, Lisbon, 2000)[23].

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[20] It is important to take in to account of possible (negative and positive) spatial spillovers (e.g. Bollino – Signorelli, 2003).

[21] The EES is based on both vertical and horizontal subsidiarity principle.

[22] For example, a reduction of the European resources devoted to the agricultural sector (characterised by a low and decreasing sectoral employment rate) would be accompanied by an increase in the European Social Fund supporting the European Employment Strategy.

[23] In this paper the analysis is limited to the main quantitative indicators of labour market performance, without considering the quality of the jobs (e.g. the diffusion of "working poor") and the changes in productivity and real wages.

References

Baddely M. – Martin R. – Tyler P. (1998) "European Regional Unemployment Disparities: Convergence or Persistence?" in *European Urban and Regional Studies*, 5(3), pp. 195-215.

Bettio F. – Villa P. (1995) "A Mediterranean Perspective on the Breack-down of the Relationship Between Participation and Fertility", *Discussion Papers*, University of Trento.

Blanchard O. J. – Katz L. F. (1992) "Regional Evolutions", *Brookings Papers of Economic Activity, 1, 1-61.*

Boldrin M., Canova F., (2001): "Europe's regions –Income disparities and regional policies-", in *Economic Policy,* April, 207-245.

Bollino C. A. – Signorelli M. (2001) "Structural Factors and Labour Demand in Italian Macro-Regions", (con C. A. Bollino), *Economia & Lavoro*, n. 3.

Bollino C. A. – Signorelli M. (2003) "Evolution of Production Structure in the Italian Regions", (con C. A. Bollino), in *The Italian Economy at the Dawn of the XXI Century*, M. Di Matteo and P. Piacentini (eds.), Ashgate, Aldershot.

Calzoni G. – Perugini C. – Polinori P. – Signorelli M. (2004) "Regional Economic Convergence and Employment Performance: Poland vs. Italy", in *Proces Globalizacjii Gospodarki*, M. Klamut (ed.), Akademia Ekonomiczna, Wroclaw, Poland.

Caroleo F. E. – De Stefanis S. (2004) "Regions, Europe and the Labour Market: Recent Problems and Developments", Physica Verlag, Heidelberg.

Croci Angelici E. – Farina F. (2000) "Convergenza fra Nazioni e Divergenza fra Regioni nell'Unione Europea", *Quaderno DIEF*, n. 8, Università di Macerata.

Decressin J. – Fatas A. (1995) "Regional Labor Market Dynamics in Europe", *European Economic Review*, 39.

European Commission (2000) "Sixth Periodic Report on the Social and Economic Situation and Development of Regions in the European Regions", Bruxelles.

EU (2003) "Employment in Europe 2003", European Commission, Luxembourg.

EU (2004): "Delivering Lisbon. Reforms form the enlarged Union", *Report from the Commission to the Spring European Council*, Bruxelles, 2004.

EU (2004) "Employment in Europe 2004", European Commission, Luxembourg.

Farina F. – Tamborini R. (2002) (Eds.) "Da Nazioni a Regioni. Mutamenti Istituzionali e Strutturali dopo l'Unione Monetaria Europea", Il Mulino, Bologna.

Genda Y. – Pazienza M. G. – Signorelli M. (2001) "Labour Market Performance and Job Creation", in *Comparing Economic Systems: Italy and Japan*, A. Boltho, A. Vercelli e H. Yoshikawa (eds.), Palgrave (Macmillan), 2001, London and New York.

Istat (1997) "I Sistemi Locali del Lavoro", Sforzi F. (ed.), Serie Argomenti, n. 10, Rome.

Marelli E. (2004) "Evolution of Employment Structure and Regional Specialisation in EU", *Economic Systems*, 28-1.

Martin R. – Tyler P. (2000) "Regional Employment Evolutions in the European Union: a Preliminary Analysis", *Regional Studies*, 34.

Pieroni L. – Signorelli M. (2002) "Labour Market Institutions and Employment Performance", *Quaderni del Dipartimento di Economia Politica*, Università di Siena, n. 364.

Perugini C. - Signorelli M. (2004a): "Labour Market Structure in the Italian Provinces: a Cluster Analysis", *Quaderni del Dipartimento di Economia*, Università di Perugia, n. 12, luglio.

Perugini C. - Signorelli M. (2004b): "I Flussi in Entrata nei Mercati del Lavoro Umbri: un'Analisi di Cluster", *Quaderni del Dipartimento di Economia*, Università di Perugia, n. 13, luglio.

Perugini C. - Signorelli M. (2004c): "Labour Market Performance and Convergence in European Countries", *European Journal of Comparative Economics*, n. 2.

Ranieri A. - Scarpetta S. (1994): "La segmentazione del mercato del lavoro in Italia: analisi dei differenziali di disoccupazione tra mercati locali", in F. Pasquini, T. Pompili, P. Secondini (eds.), *Modelli d'analisi e d'intervento per un nuovo regionalismo*, Franco Angeli, Milano.

Reyneri E. (1997): *Occupati e disoccupati in Italia*, Il Mulino, Bologna.

Sapir A. (2004) "An Agenda for a Growing Europe. The Sapir Report", Oxford University Press, Oxford.

Svejnar J. (1999): "Labor markets in the transitional and central eastern European economies", in *Handbook of Labor Economics*, Vol. 3, in Ashenfelter O. and Card D. (eds.), Elsevier Science.

Schneider F. - Enste D. (2000): "Shadow economies: size, causes and consequences", *The journal of economic literature*, 38/1, PP. 77-114.

Schneider F. (2003): "Shadow economy around the world: size, causes and consequences", paper presented at the *AIEL annual conference* held in Messina (Italy), September 2003.

Signorelli M. (1997) "Uncertainty, Flexibility Gap and Labour Demand in the Italian Economy", *Labour*, 1, 1997, pp. 141-175.

Signorelli M. (2000) "Relazioni Industriali e Occupazione in Italia in una Prospettiva Comparata", *Stato e Mercato*, n. 3.

Signorelli M. – Tiraboschi M. (2004) (Eds.) "Mercato del Lavoro, Norme e Contrattazione", ESI, Napoli.

Signorelli M. – Vercelli A. (1994) "Structural Changes in the Post-War Italian Economy" in *Economic Performance: a look at Austria and Italy*, B. Boehm e L.F. Punzo (a cura di), Physica-Verlag, Heidelberg, Berlin and Vienna.

Tronti L. (2003): "Fruitful or fashionable? Can benchmarking improve the employment performance of national labour markets?", mimeo.

Appendix

Table A1 - Total employment rates in Italian Provinces (2002)

ER < 40% (6 Provinces)	Crotone (37.5), Agrigento (38.1), Caltanisetta (38.1), Palermo (39.1), Caserta (39.3) and Naples (39.8).
ER 40-45% (8 Provinces)	Enna (40.9), Reggio Calabria (41.3), Catania (41.6), Cosenza (42.4), Foggia (42.6), Vibo Valentia (42.7), Taranto (43.3) and Salerno (44.5).
ER 45-50% (14 Provinces)	Cagliari (45.1), Catanzaro (45.2), Lecce (45.2), Siracusa (45.5), Brindisi (45.7), Trapani(45.7), Matera (46.0), Potenza (46.6), Nuoro (46.7), Messina (46.7), Bari (47.8), Oristano (47.8), Ragusa (48.2) and Frosinone (49.9).
ER 50-55% (11 Provinces)	Sassari (50.2), Rieti (50.7), Latina (50.8), Avellino (51.4), Campobasso (51.5), Viterbo (51.8), Terni (53.6), Isernia (53.9), La Spezia (54.3), Benevento (54.4) and Chieti (54.6).
ER 55-60% (9 Provinces)	Massa (55.0), Teramo (55.6), Livorno (56.3), Pescara (56.4), L'Aquila (56.9), Rome (57.0), Genova (57.6), Trieste (59.0) and Lucca (59.2).
ER 60-65% (36 Provinces)	Turin (60.2), Padua (60.4), Alessandria (60.4), Grosseto (60.5), Venezia (60.9), Pisa (61.0), Bergamo (61.1), Ascoli Piceno (61.2), Perugia (61.3), Gorizia (61.6), Sondrio (61.7), Savona (62.1), Udine (62.2), Imperia (62.4), Ancona (62.4), Rovigo (62.5), Rimini (62.6), Lecco (62.6), Trento (62.8), Brescia (62.9), Verona (63.1), Florence (63.2), Verbania (63.6), Milan (63.6), Asti (63.6), Pistoia (63.8), Como (63.8), Pesaro-Urbino (63.9), Lodi (64.0), Arezzo (64.0), Pavia (64.0), Cremona (64.2), Piacenza (64.2), Vercelli (64.3), Varese (64.3) and Macerata (64.9).
ER 65-70% (16 Provinces)	Ferrara (65.0), Pordenone (65.0), Prato (65.0), Vicenza (65.6), Parma (65.8), Treviso (65.9), Novara (66.2), Cuneo (66.2), Biella (66.2), Aosta (66.4), Mantova (66.5), Siena (67.6), Belluno (67.7), Bologna (67.9), Forlì (69.1) and Modena (69.8).
ER > 70% (3 Provinces)	Bolzano (70.5), Ravenna (70.5) and Reggio Emilia (70.7).
	Coefficient of variation = 0.16

Source: Istat, 2003.

Table A2 - Female employment rates in Italian Provinces (2002)

ER < 25% (9 Provinces)	Caltanisetta (16.7), Crotone (20.5), Agrigento (20.6), Naples (20.8), Enna (21.1), Caserta (21.8), Palermo (22.4), Foggia (22.7), Siracusa (23.8).
ER 25-30% (13 Provinces)	Catania (25.1), Trapani (25.4), Cosenza (25.4), Taranto (25.9), Vibo Valentia (26.5), Ragusa (27.1), Salerno (27.8), Matera (27.9), Reggio Calabria (28.1), Bari (28.9), Nuoro (29.0), Lecce (29.6) and Catanzaro (29.9).
ER 30-35% (8 Provinces)	Cagliari (30.3), Brindisi (30.6), Potenza (30.6), Latina (32.3), Frosinone (32.5), Oristano (32.9), Messina (33.2) and Sassari (34.6).
ER 35-40% (5 Provinces)	Avellino (35.8), Campobasso (36.2), Viterbo (37.0), Rieti (37.0) and Isernia (39.5).
ER 40-45% (10 Provinces)	Benevento (40.4), La Spezia (40.6), Chieti (40.7), Pescara (40.8), L'Aquila (41.2), Terni (41.5), Teramo (42.5), Livorno (43.0), Massa (43.8) and Rome (44.4).
ER 45-50% (12 Provinces)	Bergamo (45.6), Lucca (45.8), Genova (46.3), Padua (46.6), Venice (47.3), Grosseto (47.6), Alessandria (48.1), Lecco (48.6), Imperia (49.2), Verona (49.2), Brescia (49.6) and Sondrio (49.9).
ER 50-55% (31 Provinces)	Pisa (50.1), Turin (50.2), Trento (50.4), Perugia (50.5), Gorizia (50.8), Rovigo (51.2), Rimini (51.3), Cremona (51.3), Udine (51.4), Ascoli Piceno (51.5), Asti (51.5), Trieste (52.1), Como (52.3), Lodi (52.3), Prato (52.4), Piacenza (52.5), Ferrara (52.6), Pistoia (52.8), Verbania (52.9), Pesaro-Urbino (53.0), Treviso (53.1), Pordenone (53.3), Milan (53.5), Ancona (53.6), Savona (53.7), Florence (53.7), Pavia (53.8), Macerata (53.9), Vercelli (54.1), Arezzo (54.3), Cuneo (54.9) and Mantova (54.9).
ER 55-60% (8 Provinces)	Varese (55.1), Vicenza (56.0), Aosta (56.5), Novara (56.9), Parma (57.5), Biella (58.4), Belluno (58.8) and Bolzano (59.7).
ER > 60% (6 Provinces)	Siena (60.3), Forlì (60.3), Bologna (61.1), Modena (62.2), Reggio Emilia (62.3) and Ravenna (62.5).
	Coefficient of variation = 0.28

Source: Istat, 2003.

Table A3 - Total employment rates in the 16 local labour systems of the Region of Umbria

ER 60-63% (9 Local labour systems)	Perugia (62.6), Assisi (62.5), Umbertine (62.0), Castiglion del Lago (60.7), Gualdo Tadino (60.6), Norcia (60.5), Cascia (60.3), Città di Castello (60.1), *Fabro (60.0)*.
ER 56-60% (7 Local labour systems)	Marsciano (59.9), Gubbio (59.8), Todi (59.6), *Orvieto (59.4)*, Foligno (58.6), Spoleto (58.6), *Terni (56.3)*.
coefficient of variation = 0.026	

Source: Elaboration on ISTAT data.

Note: the local labour systems in the Province of Terni are indicated in *italics*.