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Structural Funds and Economic Divide in Italy

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Motivation

- The paper contributes to the debate on the impact of the SF in Italy and focuses on the territorial effects of EU spending from 1996 to 2007
- This type of evaluation is crucial for Italy, in that the regional economic divide is a fact that characterises the economic model of this country
- The persistency of such a divide, despite the amount of EU resources destined to the underdeveloped areas of the country, makes the question of the effectiveness of these policies more poignant
- The evaluation of the effects of the cohesion policy is a particularly relevant issue if one thinks that the SF represent a significant quota of public transfers made in favour of Southern Italian regions

Literature overview

Although a vast literature has analysed the convergence processes in Europe, there are few empirical verifications of the impact of the SF on the regional economic divide.

Two approaches are used. The first one aims to estimate the impact of the SF using a model based on labour demand and aggregate production functions (de la Fuente, 2002; Percoco, 2005). These models allow for gathering an indirect impact of EU policies on convergence

The second approach aims to directly analyse the contribution of the SF on convergence through the estimation of conditional convergence equations (Boldrin and Canova, 2001; Garcìa Solanes and Marìa-Dolores, 2002; Cappelen *et al*, 2003; Ederveen *et al*, 2002; Puigcerver-Peňalver, 2007).

Literature overview

Empirical evidence does not allow one to draw clear indications of the role of EU regional cohesion policies.

A critical point of view on the role of funds is expressed by Boldrin and Canova (2001), ISAE (2001), Ederveen et al (2002), Midelfart-Knarvik and Overman (2002), Cappellen *et al* (2001), Dall'erba and Le Gallo (2008) which point out their mere redistribution effect

More optimistic results are obtained by de la Fuente (2002) and Garcìa Solanes and Marìa-Dolores (2002).

Literature overview

There is not a dataset of SF at regional level from a *territorial* perspective (because of the changes of the regional administrative borders of some countries and the various EU enlargements)

There is not a dataset of EU funds at regional level from a *financial* perspective (SF are classified on a regional basis and for type of intervention only from the mid 1990s)

No study uses the amount of SF spent by each region. The common practice is to use the programmed or committed amounts (Coppola and Destefanis, 2007; Garcìa Solanes and Marìa-Dolores, 2002; de la Fuente, 2002).

Other critical aspects concern the methodology used (later)

Objectives and contribution of the paper

This paper proposes an empirical evidence on the territorial effects of EU spending and contributes to enriching the literature that in Italy has dealt with the impact of the SF (limited to the works of Coppola and Destefanis, 2007; Loddo, 2006; Percoco, 2005).

It considers only the Italian regions whose administrative borders have not changed over time

It uses the amount spent and not only the resources committed

It adopts a proper methodology to address some econometrics issues common in growth empirics [limited size of the sample, potential endogeneity of regressors, heterogeneity, business cycle]

Public investments in Italy

A useful indicator to appraise the intensity of state intervention aimed at fostering economic growth is the **capital account public expenditure** (investments expenditure and capital account transfers)

The distribution of investments by geographical area is coherent to the objectives of territorial rebalancing [the public spending compared to GDP and population is concentrated in the regions of the Mezzogiorno. This allocation produces a significant re-distributional effect]

Public investments in Italy and Structural Funds

A substantial support to the development of the Mezzogiorno has been offered by the EU resources coming from the Structural Funds and from the national co-financing

EU funds have represented a large quota of the overall capital account public expenditure received by the Mezzogiorno

Territorial distribution of Structural Funds

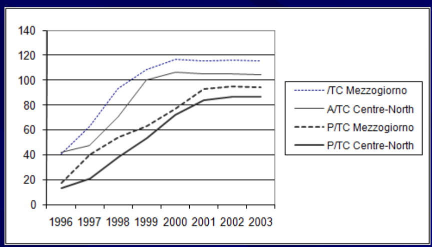
	Programming Periods 1994-1999 (MLN of Euro)	Programming Periods 2000-2006 (MLN of Euro)	1994-2006 (MLN of Euro)	SF/GDP (%)	SF/Pop (in Euro)	SF/ Total Investment (%)	SF/Public Investment (%)
Mezzogiorno:	31,818.99	46,019.33	77,838.32	2.2%	211,0	10.7%	39.9%
Centre-North	16,196.43	16,280.25	32,476.68	0.3%	156,6	1.4%	9.5%
Italy	48,015.42	62,299.58	110,315	0.7%	191,4	3.6%	20.5%

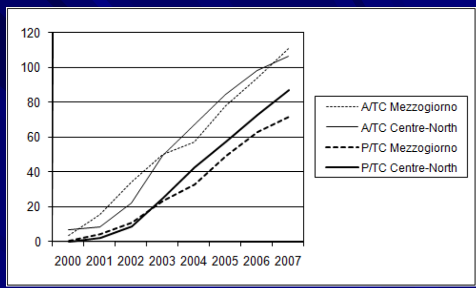
Territorial distribution of SF

The amount of SF received by Italy was more than 110 billion Euro (almost 78 billion in the regions of the Mezzogiorno and a little more than 32 billion in those of the Centre-North).

In the Mezzogiorno of Italy these transfers represent around 11% of the total investments and 40% of public investments, while in the Centre-North they equal, respectively, 1.4% and 9.5%.

First conclusion: the distribution of SF favours the backward areas of the country and, therefore, indicates that these economies are strongly dependent on investments activated by Europe.





1994-1999

The start was slow. 3 years after the start (in 1996) only 41% of the programme had been committed and only 16% was spent

The percentage of payments was 89.7% in 2001 and 91.7% in 2003. MZ performs better than CN

There are substantial territorial differences in managing the Structural Funds (committed resources and payments are 115% and 94% of the total programme when considering the MZ and 104% and 87% in the CN)

2000-2006

Difficulties in the start of the programme in the CN. Once the initial phase had been overcome, all the indices show a better performance for the CN compared to the MZ

At the end of 2007 all the available resources had been committed in the MZ and in the CN

The payments effected by 31/12/2007 amount to almost 82% of the total programme (72% in the MZ and 87% in the CN) and to 74% of the committed resources (72% in the MZ and 82% in the CN). But the formal closing of the cycle was fixed for 30/06/2009

Managing expenditure 1/3

The distribution of EU funds is coherent with the criterion to give greater resources to the less developed regions

However, the performance in the use of EU resources is linked to the ability of individual regions to manage funds rather than to the territory involved (MZ *versus* CN)

Not all the resources have been employed and there was a concentration of the spending in the years 2000-03, which is a period relatively too recent for the public expenditure to have been able to produce all of its effects

It could be expected that, *ceteris paribus*, the final impact of the European cohesion policy would be greater in the South of Italy (in relative terms, this area received much more payments than the rest of Italy)

Managing expenditure 2/3

<u>Quantity *versus* quality</u>

Coherent-projects

Co-financed expenditure concerns projects already undertaken and, therefore, regards projects which in many cases are very far from the development strategies indicated in the initial general programmes funded by the EU

Operating rules to assign the resources

The implemented mechanisms exclude any form of competition between the regions: regional authorities do not have any incentive to use the SF to realise high productive projects (moral hazard & rent seeking)

Expenditure: an objective in itself

Can the simple incentive to spend guarantee results in terms of effectiveness of a policy? Each beneficiary region had to record a high level of expenditure, whatever the project. This has caused continuous reprogramming: final interventions are different from those initially programmed!

Managing expenditure 3/3

If EU funds are not properly spent, instead of accelerating the regional convergence, they can reduce the free action of market forces which are the source of economic growth (this is highly likely to occur when the non-productive EU expenditure decreases, for example, the labour mobility or crowds-out private investments).

Alongside the evaluations on the management of the funds, it is extremely useful to evaluate the effect of these policies on the economic growth of Italian regions.

The empirical analysis

The empirical analysis is realised by estimating a panel data growth model in which the dependent variable is the annual growth rate of GDP per-capita, or of the labour productivity, and the SF are used as a further explanatory variable of the convergence equation

Within the empirics of SF, the innovation of the paper lies in the econometric methods used to estimate the dynamic growth model. Regressions are carried out by using Kiviet and GMM-SYS estimators which allow us to account for non-observable regional heterogeneity, small-sample bias and possible endogeneity of regressors (including SF)

The empirical framework

Dynamic Panel data
20 regions
Period: 1996-2007
Annual data => Error correction model

$$\ln(y_{it}) = \beta \ln(y_{i,t-1}) + \gamma \ln(s_{it}) + \phi \ln(n_{it} + g + \delta) + \alpha \ln(h_{it}) + \theta \ln(f_{it}) + \mu_i + \eta_t +$$
$$+ \pi_1 \Delta \ln(s_{it}) + \pi_2 \Delta \ln(h_{it}) + \pi_3 \Delta \ln(n_{it}) + \pi_4 \Delta \ln(f_{it}) + \varepsilon_{it}$$

The impact of Structural Funds on regional convergence in Italy (1996-2007). Dependent variable: GDP per- capita (in logs) **(1/2)**

Variables	LSDVC KIVIET (1)	LSDVC KIVIET (2)	GMM-SYS (3)	GMM-SYS (4)
$\ln(y_{i,t-\tau})$	0,9401	0,94	0,9472	0,947
	(11.22)	*(9.07)*	*(2.78)*	*(2.56)*
$\ln(s_{i,t})$	2E-06	1,9E-06	0,000009	9E-06
	(2.43)	*(2.16)*	*(1.63)*	*(1.81)*
$\ln(n_{i,t}+g+\delta)$	-0,001	-0,001	-0,0136	-0,0136
	(-1.56)	*(-1.78)*	*(-2.16)*	*(-2.21)*
$\ln(h_{i,t})$	0.197	0.1966	0,349	0,349
	(2.43)	*(2.28)*	*(1.75)*	*(1.8)*
$\ln(F_{i,t}/GDP_{i,t})$	**0,081**	**0,017**	**0,09**	**0,029**
	(3.01)	*(2,43)*	*(2,49)*	*(1,98)*
$D_{South}*\ln(F_{i,t}/GDP_{i,t})$		**0,061**		**0,058**
		(3,76)		*(5,61)*
$\Delta\ln(s_{i,t})$	*3E-07*	*3E-07*	*9,8E-08*	*8E-08*
	(1.47)	*(1.01)*	*(1.67)*	*(1.73)*
$\Delta\ln(n_{i,t})$	*-8E-07*	*-8E-07*	*-4,5E-08*	*-7E-08*
	(-1.51)	*(-1.81)*	*(-1.82)*	*(-1.8)*
$\Delta\ln(h_{i,t})$	*0,00005*	*0,00005*	*2E-07*	*2E-07*
	(0.5)	*(1.01)*	*(1.14)*	*(1.22)*
$\Delta\ln(F_{i,t}/PIL_{i,t})$	*0,00002*	*0,00002*	*4,38E-06*	*5E-06*
	(1.5)	*(1.54)*	*(1.12)*	*(1.34)*
Sargan Test (p-value)			0,49	0,49
AR(1) (p-value)			0.02	0.02
AR(2) (p-value)			0.53	0.495
Obs.	220	220	220	220
Speed of Convergence	6,18%	6,19%	5,42%	5,45%

The impact of Structural Funds on regional convergence in Italy (1996-2007). Dependent variable: Labour Productivity (in logs) **(2/2)**

Variabili esplicative	LSDVC KIVIET (5)	LSDVC KIVIET (6)	GMM-SYS (7)	GMM-SYS (8)
$ln(y_{i,t-\tau})$	0,9408	0,9406	0,95	0,951
	(5.71)	*(5.71)*	*(1.98)*	*(2.01)*
$ln(s_{i,t})$	1E-05	1,4E-05	0,0008	0,0008
	(1.49)	*(1.65)*	*(1.83)*	*(1.79)*
$ln(n_{i,t}+g+\delta)$	-0,004	-0,004	-0,071	-0,071
	(-2.89)	*(-2.32)*	*(-4.01)*	*(-3.74)*
$ln(h_{i,t})$	0.39	0.392	0,361	0,356
	(2)	*(2.09)*	*(1.85)*	*(1.78)*
$ln(F_{i,t}/PIL_{i,t})_{Pagamenti}$	***0,001***	***0,00001***	***0,007***	***1E-05***
	(1.56)	*(1.26)*	*(1,45)*	*(1,28)*
$D_{Sud}*ln(F_{i,t}/PIL_{i,t})_{Pagamenti}$		***0,0009***		***0,0039***
		(1.61)		*(1,59)*
$\Delta ln(s_{i,t})$	*3E-07*	*5,4E-07*	*2E-08*	*3E-08*
	(1.47)	*(1.4)*	*(1.58)*	*(1.66)*
$\Delta ln(n_{i,t})$	*-8E-07*	*-1E-06*	*-5E-08*	*-8E-08*
	(-1.51)	*(-1.35)*	*(-1.92)*	*(-1.96)*
$\Delta ln(h_{i,t})$	*5E-05*	*7,1E-05*	*2E-06*	*2E-06*
	(0.32)	*(0.75)*	*(1.321)*	*(1.39)*
$\Delta ln(F_{i,t}/PIL_{i,t})$	*0,0003*	*0,00002*	*8E-06*	*8E-06*
	(1.11)	*(1.31)*	*(1.46)*	*(-1.8)*
Test di Sargan (p-value)			0,51	0,51
AR(1) (p-value)			0.07	0.068
AR(2) (p-value)			0.61	0.592
Osservazioni	220	220	220	220
Velocità di Convergenza	6,10%	6,12%	5,13%	5,02%

Results: summary

As far as the GDP per-capita convergence is concerned, the impact of EU support is found to be positive, although its magnitude is extremely low

When considering the territorial effects of the EU spending, it is observed that the impact on GDP per-capita growth is slightly greater in the Mezzogiorno than in the Centre-North of the country

On the contrary, we find that the EU funds do not impact on the labour-productivity convergence, whatever the area.

Concluding remarks (1/3)

Quality of institutions of supported regions

There is a lot of evidence showing that central and peripheral institutions in Italy work in a very slow complex way and in many cases they pursue objectives other than those related to development

The measures adopted by EU to improve the management of the funds **overrated**, in the period under scrutiny, the quantity rather than the quality of the spending

Concluding remarks (2/3)

The increase of the average rate of growth of the per-capita income in the South of Italy is simply determined by the European transfers that have mostly interested the southern area of the country

Therefore, what could appear as a positive signal for the solution of the problem of the dependence of the southern economy on external resources is nothing more than the result of that same dependence.

To simplify: the income in the north of the country increases because the north produces income, while the increases of income in the south of the country depend on the external transfers from EU (or from national government)

Concluding remarks (3/3)

Structural Funds : *cui prodest*?

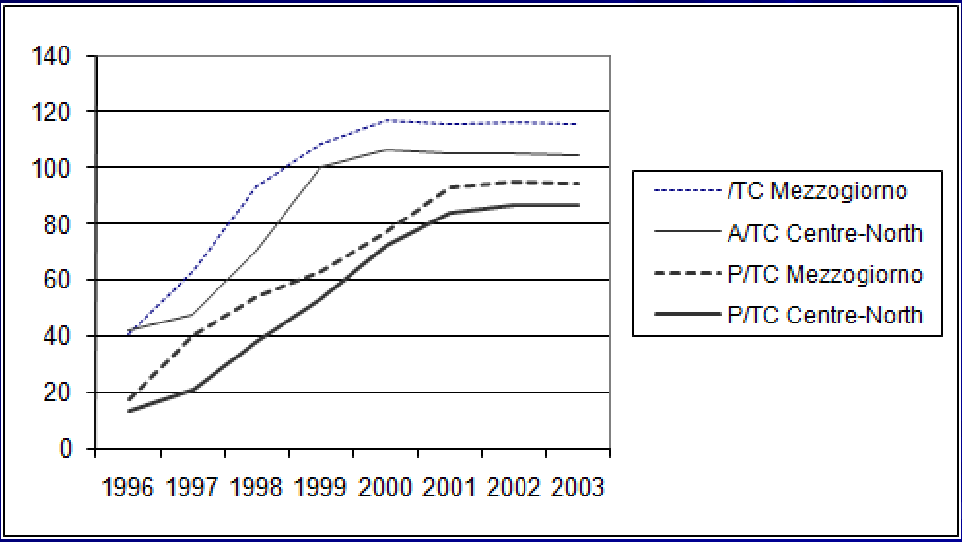
The Structural Funds have not modified the structural conditions that determine the long term growth of the Italian regions and, therefore, have only slightly contributed to resolve the problem of the north-south divide.

Territorial distribution of public investments (average values 1996-2006)

	Population	GDP	Capital account expenditure (%)	Capital account expenditure /Population (in Euro)	Capital account expenditure /GDP (%)
Centre-North	64.2%	75.9%	61.3%	780	3.1%
Mezzogiorno	35.9%	24.1%	38.7%	876	6.2%
Italy	100%	100%	100%	815	3.9%

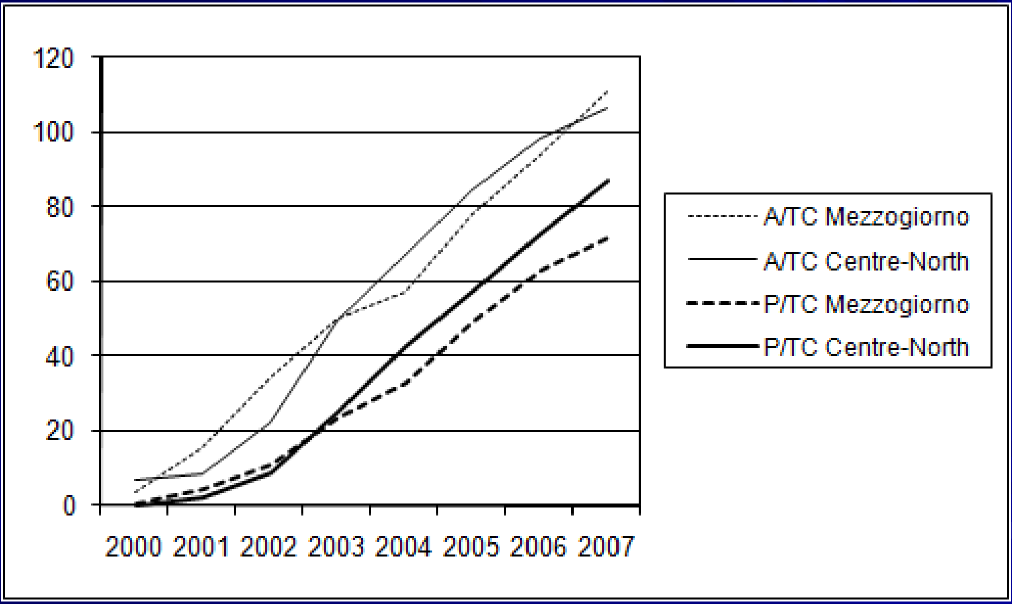
Source: own elaboration from data of the Italian National Institute of Statistics (ISTAT 2005, 2008) and "Regional Public Accounts" dataset, Department for Development and Cohesion Policies of the Italian Ministry of Economic Development (2008).

Managing Structural Funds (1994-1999)



Key: A=Committed resources; CT=Total Amount of the Programme; P=Payments made.

Managing Structural Funds (2000-2006)



Key: A=Committed resources; TC=Total Amount of the Programme; P=Payments made.