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How effective are active employment policies to reduce unemployment in EU countries?

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Abstract

This paper is an empirical analysis of panel data cross-sectional ordinary least squares (OLS) of expenditure on employment policies in the European Union (EU). The data source is EUROSTAT and OECD for general analysis of the EU. The results reveal overall level of European active labor market policies are statistically significant in reducing unemployment. In detail employment agencies and training show significant statistical evidence in reducing unemployment. When classified by geographic areas, Central Europe has a better efficiency in the use of active labor market policies in relation to other geographical area. In the other hand, passive labor market policies as unemployment insurance show out stretch to increase unemployment.

Resumen

Este documento realiza un análisis empírico del panel de datos transversal mínimos cuadrados ordinarios (MCO) del gasto en políticas de empleo en la Unión Europea (UE). El origen de datos es EUROSTAT y la OCDE para el análisis general de la Unión Europea. Los resultados revelan que el nivel general de las políticas activas del mercado laboral Europeo son estadísticamente significativas en la reducción del desempleo. En detalle, las agencias de empleo y formación muestran una evidencia estadística significativa en la reducción del desempleo. Clasificados por áreas geográficas, Europa Central tiene una mejor eficiencia en el uso de las políticas de mercado laboral en relación con otras áreas geográficas. Por otra parte, la políticas pasivas, como el seguro de desempleo, muestran un exagerado aumento del desempleo.

JEL: J08, J65

1.- Introduction

The unemployment across the European Union is a major concern of Western economies century. The increase in unemployment is particularly caused by economic adjustment problems experienced in times of recession in the business cycle of capitalist economies. It is for this reason that one of the measures that the countries in the European Union (EU) to combat and to soften the social impact are the use of employment policies.

Employment policies are divided into passives and actives. The passives (PLMPs) are designed for social support to those still being qualified to work cannot do so, due to imperfections between supply and demand for labor. Active labour market policies (ALMPs) on the other hand are designed to encourage the use of less productive labour from those who are outside the labor market. These policies seek profitable somehow make hiring these people in business.

The problem lies in finding active policies which there are more effective and which do nothing to lower unemployment. In this way you can allocate available resources to policies of employment if they meet their goal and reduce or disappear budget allocation policies that contribute little or nothing to reduce unemployment in the European Union.

Throughout this study we present an empirical analysis of cross-sectional data comparing panel of EU countries from a data taken from Eurostat and OECD from 2000 to 2010, which compared the use of employment policy between different EU countries and common patterns that can compare spending on employment policies, differences in budget allocation and effectiveness of the policies employed.

A. Purpose of the research

Using aggregate data and making cross-country comparisons between EU countries. The purpose of this article is to compare the use of ALMPs in EU countries and validate with ALMPs actually contribute to reduce unemployment.

2.- Employment policies and its effectiveness

A. Theoretical framework

In every country the high level of unemployment is associated to basically two main components: First, the cyclical component show an imbalance between supply and demand of goods and services caused by excess of production that the market is able to acquire, this makes companies be forced to reduce their production making that companies cut down staff. Because of that, to predict the unemployment in the long term we have to understand the demand too (Nickell, Nunziata and Ochel, 2005).

The second component associated to the unemployment is the structural component that reflects imbalances in the labor market. These imbalances may include the distance between the new jobs and the potential workers able to make it (Nie and Struby, 2011). The main idea of traditional labor institutions is to increase the efficiency in the time that potential workers and companies make contact (Calmfors, 1994).

One of the mains purposes of the active labor market policies (ALMPs) is to help minority groups with insufficient experience and low qualification of be out of the labor market. In this aspect for example training programs shown empirical evidence of their efficiency in putting back in the labor markets this groups in short and medium-term (David, Jochen and Weber, 2010).

ALMPs are generally intended to return to the labor market for unemployed people and reduce unemployment, regardless of whether the economy is in a period of expansion or recession. In practice, the effectiveness of ALMPs varies greatly depending on the business cycle in which the economy finds itself (Bassanini, A., and Duval, R., 2006).

However, most wage-setting models posit a negative relationship between welfare reducing job loss and wage level. This is the case of union and bargaining models. They are supposed to seek an increase in welfare with higher wages for members employed against the welfare loss for members who have been laid off. It is also the case of efficiency wage models, where employers have to pay more to induce effort from employees (Nie and Struby, 2011).

In addition, this lasts years most of the studies about Labor Policies use and empirical econometric analysis to support their findings but the data is still weak (Freeman, 2007). We still do not have enough data to make a rigorous statistical analysis. But for now is the only path for compare policies and its effectiveness across countries (Lalonde, 1986).

The unemployment benefit objective is to provide temporary financing for the unemployed and their families. Additionally, unemployment benefits give the workers the ability to spend time searching for a job suited to their profile instead of accepting the first job offer they can find.

Rovelli and Bruno (2008) find empirical evidence suggesting a positive correlation between employment outcomes and the increase in endowment of ALMPs, also empirical evidence suggest to that high unemployment benefits may be associated with low employment prospects for the people that this policies were created. To combat this issue according to Zhou (2007) the labors institutions has to be very efficient in makes a good eligibility criteria in order to access to this benefit. That's the key of successful in this policy.

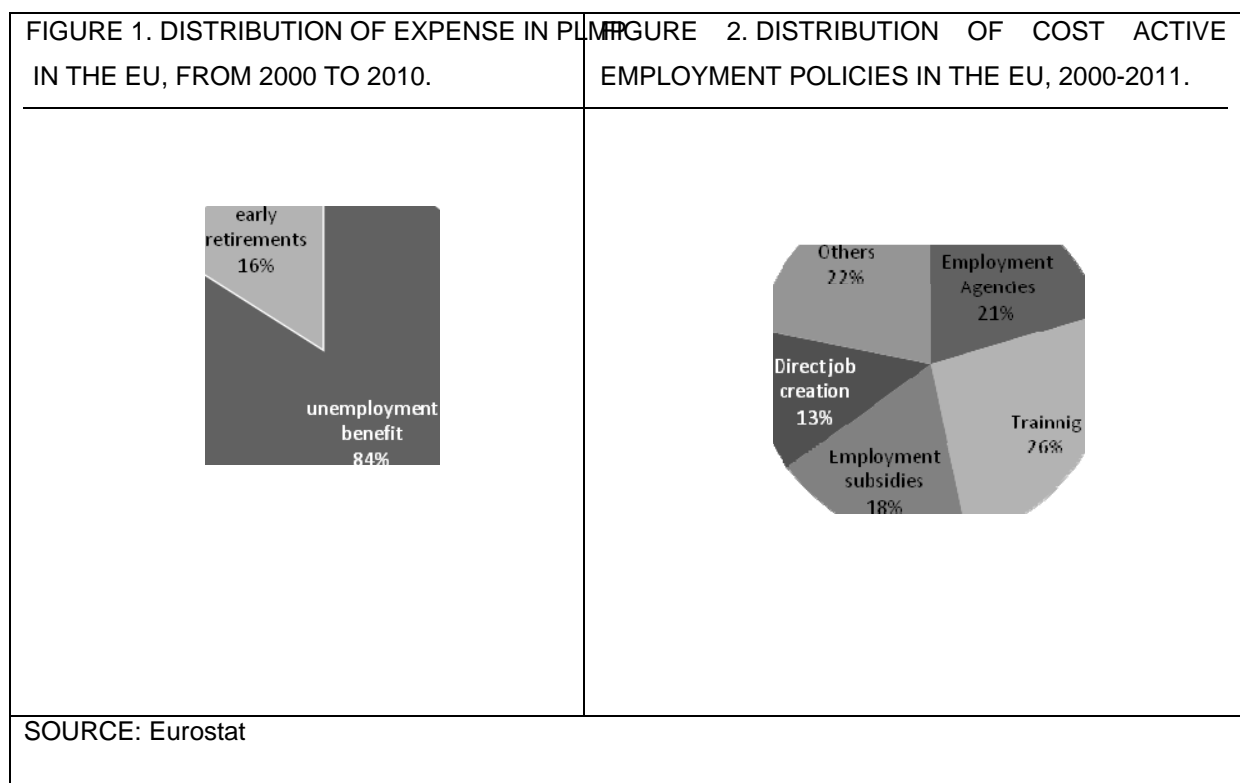
B. Average current use of policies in the EU countries

Regarding the composition of spending on passive policies 84% were intended to unemployment benefits and 16% for early retirement in the EU countries (See Figure 1).

The PLMPs are composed for: financial backers to unemployment and early retirement (Figure 1). Unemployment financial supports are designed to provide income to workers who are in a state of involuntary unemployment caused by the reduction of employment in the economy. The most common is unemployment insurance, which is paid to the unemployed as a record of your work history and any other part that changes according to the country.

The second type of financial support is one that is given to unemployed once it has exhausted their unemployment insurance or does not meet the requirements for obtaining it, is usually less generous than the unemployment insurance.

Moreover, the early retirement program assists people who are close to retirement age. These programs provide financial assistance until the person reaches the age of retirement.



ALMPS generally fall into five categories: training programs, assistance in finding employment (employment agencies), employment subsidies, direct job creation and others. (See Figure 2).

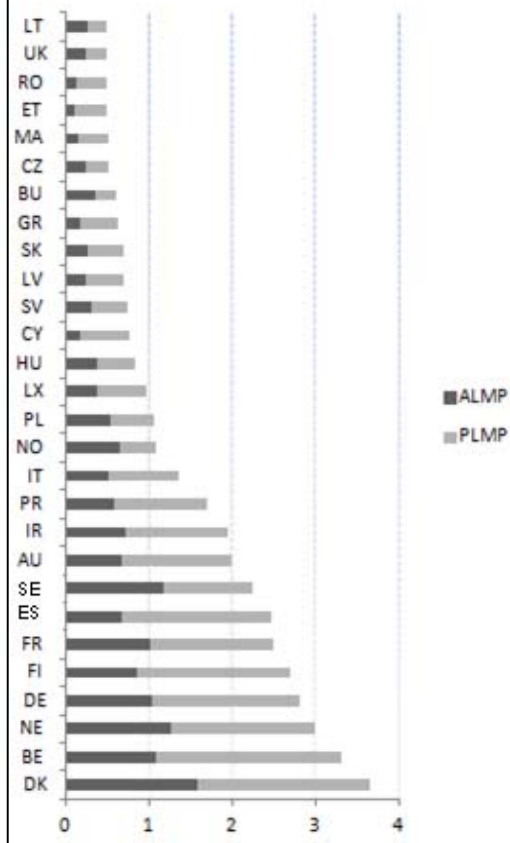
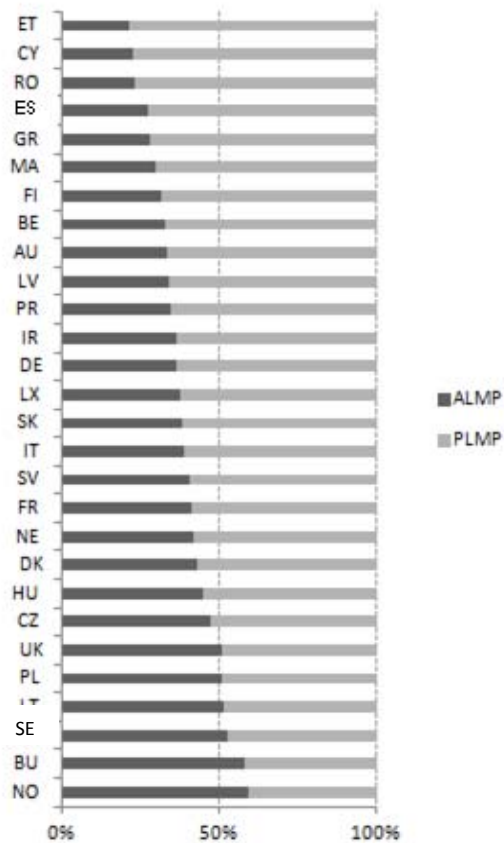
Moreover ALMPS programs in EU countries mainly targeted resources to the promotion of vocational training programs (26% of total ALMPS) and assistance in job search and Bonuses (21% and 18% of total ALMPS)(See Figure 2).

C. *Use of policies in different countries of the EU*

The shares of expenditure between active and passive policies vary from country to country. 22 of the 28 countries analyzed in this study spend more than 50% of its budget on unemployment passive policies. This means that only 6 countries expend more in ALMPS than in PLMPs than the rest of the EU, these countries are: United Kingdom, Poland, Italy, Sweden, Bulgaria, Norway. (See Figure 3).

FIGURE 3. AVERAGE SPENDING BETWEEN ALMPs AND PLMPs (IN PERCENTAGE OF TOTAL GDP EXPENSE) , 2000 -2010.

FIGURE 4. AVERAGE GDP SPENDING BETWEEN ALMPs AND PLMPs, 2000 – 2010.



SOURCE: EUROSTAT

The level of expenditure on employment policies varies widely among EU countries. From 2000 to 2010 in the countries of the European Union, the total expenditure as a share of GDP ranges from 3.62% (Denmark) to 0.47% (Lithuania), (See Figure 4).

The countries that spend more money from their budgets on employment policies in relation to their GDP are: Denmark (3.6%), Belgium (3.4%), Netherlands (2.9%) and Germany (2.7 %), (See Figure 4).

3.- Model approach

The effectiveness of active labor market policies can be quantified by observing results obtained during the last decade in different EU countries, as each country has used various combinations of policies during these years of study. Using an ordinary least squares regression of panel get the relationship between unemployment and other variables of interest in this study that may influence our dependent variable. The regression shows the relationship of active and passive policies together and their influence on unemployment.

Unemployment in a country is due to many factors and unemployment policies only make up a small part. A proper study of the measurement of unemployment requires control of the other explanatory variables, such as the protection level jobs measured for example by the level of business unionization, taxes are another factor that influences the level of unemployment because is considered as an increase in wage costs for the employer. It is also important to consider the economic cycle, as it plays an important role in determining the unemployment rate. When the economy is growing, the unemployment rate tends to be low even when few resources are devoted to employment policies. In times of recession the unemployment rate tends to be high even when employment policies are used more intensively. This is why the output gap is important as a control variable in our model.

Geographic control variables are also important as a control measure of social cultural and political-economy.

The database used in this study was extracted from Eurostat and OECD. It consists of the EU countries, which shows the influence of employment policies used and their results on the unemployment rate in EU countries.

We will use a cross-sectional analysis of panel data which compares unemployment countries of the EU and Norway, with policies in these countries from 2000 to 2010. Control variables will also use the cycle (output gap) and control variables on tax policy (Tax Wedge), union (Union Density) and employment protection legislation (Employment Protection) in order to compare the different EU countries. 3 models were specified in which analyze: the effect of Employment Policies jointly, breakdown of the main active employment policies, and a third model which analyze the geographic effect.

A. *Explanation of the model and database used*

Sample:	
Total annual sample data	308. (28 EU countries by 11 years).
Missing data	Whenever one annual data of a study parameter in a country is missing. The program eliminates that year for all countries involved. That's why depending of the specification model the sample varies from 202 in the first model to 191 in the third.
Dependent Variable:	Unemployment Rate.
Independent variables:	
Parameters of influence on unemployment:	
Union Density	Proportion of unionized workers in enterprises. (0-No employee is part of a union, 100 - All employees of the companies are part of a union).
Tax Wedge	Income tax that companies have to pay as a proportion of the salary (0 no, 100 equal to a salary).
Employment Protection	Index that measures the protection of jobs against the intention of dismissal by employers.
Output Gap	Index that measures the difference between actual and potential GDP.
Passive employment policies:	
PLMPS	Total PLMPS. Expenditure as a percentage of GDP.
Unemployment benefits	Unemployment Insurance. Expenditure as a percentage of GDP.
Active employment policies:	
ALMPS	Total ALMPS. Expenditure as a percentage of GDP.
Employment Subsidies	Temporary payments, to ease the transition of productivity required by employers for new workers in their jobs. Expenditure as a percentage of GDP.
Direct job creation	Temporary job programs created that would not exist without the application of this policy. These jobs are usually in the public sector or

	NPOs. Expenditure as a percentage of GDP.
Employment Agencies	Employment Agencies. Expenditure as a percentage of GDP.
Training	Training. Expenditure as a percentage of GDP.
Other	Other ALMPS. (Entrepreneurs initiatives, Grants for hiring people with disabilities, job rotation & sharing). Expenditure as a percentage of GDP.
Dummy Geographic	Anglo (IR, UK), Continental (AU, BE, FR, DE, LU), Med (ES, GR, IT, PG), East (BU, CY, CZ, EE, HU, LT, LI, MA, PO, RO, SL, SK)
SOURCE: Eurostat, OECD.	

B. Regressions results

Explanatory Variable	Specifications		
	(1)	(2)	(3)
Constant	36.98 ** (5.172)	37.91 ** (5.5415)	33.23 ** (5.6293)
Union Density	-0.03681 ** (-3.2836)	-0.06549 ** (-5.4213)	-0.05656 ** (-3.3929)
Tax Wedge	0.05468 * (1.8244)	0.03826 (1.4553)	0.03260 (0.9025)
Employment Protection	-0.2036 (-0.7347)	-1.206 ** (-4.2994)	-0.3403 (-0.8488)
Output Gap	-0.2976 ** (-4.458)	-0.2670 ** (-4.2050)	-0.2587 ** (-4.7625)
PLMPs	1.856 ** (4.044)		2.740 ** (6.9702)
ALMPs	-3.476 **		-1.953 **

	(-3.6110)		(-2.401)
Employment Bonuses	0.7663		
	(0.4695)		
Direct job creation	-0.4678		
	(-0.2384)		
Employment Agencies	-11.46 **		
	(-4.6172)		
Training	-6.485 **		
	(-3.8830)		
Unemployment benefits	3.127 **		
	(6.6447)		
Anglo Area			-0.8085
			(-0.6233)
Continental E.U. Area			-1.940 **
			(-2.4656)
EU East Area			1.807 *
			(1.7681)
Mediterranean Area			1.462 *
			(1.6990)
Observations (N)	202	172	191
Overall R ²	0.2950	0.4980	0.5590

Statistical "t" in brackets

* Indicates significant at the 10 percent

** Indicates significant at the 5 percent

C. Effects of employment policies on unemployment rate in the EU countries

Regression analysis with panel data for the different countries that make up the EU shows:

The ALMPs are effective to reduce unemployment, indicating that increases in spending on these policies reduce unemployment. In particular, 1 percentage point increase in ALMPs spending reduces unemployment in a range of 1.9 to 3.47 percentage points.

Bonifications and Direct Employment Creation have no empirical evidence to justify that reduce employment.

Employment Agencies and Training presented statistical evidence indicating that help reduce unemployment. In particular, 1 percentage point increase in Employment agencies spending reduces unemployment at 11.46 percentage points.

The PLMPs spending tends to increase unemployment by empirical data analyzed. In particular, the increase of 1 percentage point in unemployment benefits spending tends to increase the unemployment at 3.12 percentage points.

The control variable “Union Density” shows that the unionized workers tend to reduce unemployment. This could be explained by the fact that in times of crisis, difficulty of firing employees works as a barrier to the mass dismissal of employees. In particular, the increase of 1 percentage point in “Union Density” spending tends to reduce the unemployment in a range of 0.03 to 0.06 percentage points.

The statistical evidence is not clear about the influence of the tax wedge and employment protection on the unemployment.

Geographical control variables we take as reference group the “Nordic geographical group”, the empirical results show that ALMPs are more effective in reducing unemployment in the continental E.U. area than the East and Mediterranean Area.

The variable controlling the output gap has been introduced to make sure to take into account the economic cycle because when the economy is growing unemployment tends to be low even if little money

is allocated to ALMPs. In particular, the increase of 1 percentage point in the “Output Gap” tends to reduce the unemployment in a range of 0.25 to 0.29 percentage points.

4.- Conclusions

The results obtained in this study show the overall level of effectiveness that has active employment policies.

Policies such as tax credits and direct job creation are not significant to reduce unemployment and create distortions in the labor market creating artificially raising overall wages due to competition between the state and private sector hiring the existing workforce in the economy.

State employment agencies are significant for reducing unemployment.

Unemployment insurance has a significant effect impinging clear increase in unemployment. This could be explained by the quality of unemployment insurance in time and amount of money received by unemployed offered in EU countries that tend to prolong the time of return to the labor market.

Training initiatives have a significant effect reducing unemployment. According to economic theory, an increase in training influences the increase in labor productivity would generate employment and economic growth.

Geographic control variable indicates that the applications of the ALMPs are more effective in some countries than in others. Specifically, in the continental area of ALMPs show statistical evidence suggesting that your application works better than in other EU countries. This could be due to the good administrative control practices for application and the type of current legislation that they could have, as some EU countries existing legislation allows to remove unemployment support to people who decline a job consecutively or even government could offer work maybe not in conformance with his professional or even have to move to live in another city or province.

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