

Disaggregating data on Active Labour Market Programmes: What drives spending on employment subsidies in Europe?

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Abstract

The question of what explains variation in expenditures on Active Labour Market Programs (ALMPs) has attracted significant scholarship in recent years. While there is still disagreement on certain determinants such as the role of partisanship, significant insights have been gained with respect to the role of employers (Martin and Swank 2004), unions and dual labour markets (Rueda 2007), openness (Bonoli 2003) and international organisations (Armingeon 2005).

However, these studies have relied on a theoretically and empirically flawed dependent variable. As I argue in this paper, there is in fact little reason to believe that vastly different programs such as training and employment subsidies are driven by similar structural, interest group or indeed partisan dynamics. Conceptually, qualitative studies of reform processes indicate that different dynamics drive different activation reforms. Thus, this paper aims to address two questions. First, is it appropriate to rely on an aggregate measure of ALMPs? Second, what insights are gained by focusing on specific ALMPs such as employment subsidies?

This paper shows using regression analysis that the explanatory variables identified by the literature have different relation to distinct ALMPs. Moreover, the case of employment subsidies is analysed in greater depth to demonstrate the added analytical value that relying on disaggregated data entails. I distinguish between direct job creation and other employment subsidies. While direct job creation may be consistent with the interests of both insiders and outsiders, spending on other employment subsidies does not seem to be driven by insiders and unions. In addition, higher spending on direct job creation is associated with higher Employment Protection Legislation for temporary workers and better conditions for the unemployed. Thus, though outsiders may favour both types of subsidies, this does not mean that both have the same distributive implications.

1. Introduction

The question of what drives welfare state changes and policies has interested scholars for some time now. This paper aims to contribute to this debate by looking at the determinants of Active Labour Market Policies (ALMPs). ALMPs are policies financed by the government with the purpose of reducing unemployment and include spending on training, employment subsidies and public employment services. This focus is relevant for at least three reasons. First, labour markets are political arenas *par excellence* given their importance for labour, capital and governments. Second, the activation paradigm¹ in which these policies are embedded has gained particular importance in European Member States' reform agenda. This is particularly obvious in the increased prescriptive emphasis that international organisations such as the EU and OECD have put on activation but also empirically as many EU countries have implemented activation reforms in their labour market policies.

Third, not surprisingly given the previous two reasons, a growing and substantial literature has looked at the determinants of ALMPs. This is especially clear with respect to the literature undertaking quantitative analyses. While in the 1990s, to my knowledge, only Boix (1998) and Janoski and Hicks (1994) analysed quantitatively the determinants of ALMPs, the 2000s were marked by a growing number of studies (Martin and Swank 2004; Rueda 2006; Rueda 2007; Swank 2007; Huo, Nelson et al. 2008; Van Vliet and Koster 2008). Yet, as Bonoli (2008: abstract) notes: "we seem to be far from a satisfactory account of the determinants of active labour market policy".

A major point of disagreement surrounds the question of whether left parties are positively related to ALMPs, as these are presumed to favour labour, or whether left parties only represent the interests of insiders, not outsiders, and hence will not support ALMPs, unless certain conditions are met². The conditions under which trade unions will support ALMPs and whether this support will translate in higher spending is similarly contested. There is also disagreement concerning the preferences of labour market outsiders (Rueda 2007; Emmenegger 2009), or indeed whether one can talk about a consistent group of labour market outsiders (Häusermann and Schwander 2009; Emmenegger 2010).

These studies share the shortcoming that they rely on an indicator which is too broad. This paper argues that it is inappropriate both theoretically and empirically to use aggregate ALMPs as a dependent variable. There is little reason to presume that training, spending on public employment services, and employment subsidies, to name but three types of programs classified as ALMPs, are driven by similar dynamics.

As an attempt to present a possible solution to these problems, this paper focuses on employment subsidies. Broadly understood, these are taken to include spending on employment incentives which

¹ Most often this includes a mixture of raising "work availability requirements", "make work pay policies", and increasing "employability" (see OECD website:

http://www.oecd.org/document/5/0,3343,en_2649_33927_38938757_1_1_1_1,00.html).

² Low employment protection legislation and/or inclusive unions being case in points.

includes recruitment incentives and employment maintenance incentives; supported employment and rehabilitation; and direct job creation. One can make a distinction between the former two which target mostly private sector jobs, whereas the latter is often associated with the creation of non-private sector jobs.

The rationale for focusing on employment subsidies is twofold. First, it makes it possible to inquire whether different employment subsidies are themselves driven by different dynamics. Second, this type of ALMPs is likely to have distinct effects on different labour groups. This is relevant because following Rueda (2007) it is further argued that labour should not be treated as a homogenous actor in terms of preferences and strength. To the extent that program recipients are not randomly selected among the labour force and that the interests of people in stable employment, in precarious employment and in unemployment have different interests and preferences, it is not sufficient to assume labour homogeneity.

The research question of this paper is therefore twofold:

- 1) Are different measures under the heading of ALMPs driven by different dynamics?
- 2) How are different employment subsidies driven by insider-outsider structures?

First, I argue that different ALMPs have different relationships with the main determinants that the literature has identified. Second, I distinguish between employment subsidies on direct job creation and other employment subsidies that target employees and employers' incentives. I show how the corporatist structure and interest group organisation is related to spending on employment subsidies. In essence, this approach is a hybrid between a purely micro investigation analysing the preferences of groups (Emmenegger 2009) and those looking at more macro determinants such as the strength of the left or the degree of openness.

More specifically, I construct a simple model that tests the influence of three labour groups (insiders, unemployed and workers in part time and temporary employment) on the two types of employment subsidies. I investigate how the size and strengths of these different groups are related to these employment subsidies. While the analysis is arguably crude and 'structural', it nevertheless highlights both the need and the potential added analytical value of disaggregating both the independent variable - labour - and the dependent variable - specific ALMPs.

The next section reviews the hypotheses and results of the relevant literature. The third section asks whether it makes sense to rely on aggregate measures of ALMPs. Then the case of employment subsidies is used to develop and test a simple insider-outsider model. The last section concludes and draws some implications for further research.

2. Literature review

The debate has been centred particularly strongly on the role of partisanship. On the one hand, authors (Huo, Nelson et al. 2008) find that spending on ALMPs is positively influenced by the presence of social democratic and left wing parties in government. The idea is that social democratic parties' traditional concern for employment implies that they would embrace activation insofar as it promotes employment and hence the interests of labour. The prototypical illustration of this is the active labour market policy undertaken by Sweden under social democratic rule (Esping-Andersen 1990). Other left leaning actors such as Unions are also expected to support these spending on activation programs as this strengthens unions' bargaining strength through lower unemployment. Nelson (2006: 1) finds that "trade union members are more likely to support active policies when structural change is occurring rapidly, employment protection is low and union membership is more encompassing".

On the other hand, Rueda (2007) finds that activation spending is not (or negatively) affected by social democratic parties. The argument is that labour is not homogenous and can be divided into labour market insiders (those with regular full time employment) and outsiders (the unemployed and workers in part time and temporary employment). In this theory, the interests of these two groups are different because "insiders care about their own employment protection much more than about labour market policies aimed at promoting the interests of outsiders" (ibid: 212). Social democratic parties are concerned only about insiders as their core constituency and not about ALMPs' main target group (i.e.: outsiders). As a result, they are either neutral or opposed to activation, except where employment protection of insiders is low thereby making insiders more like outsiders.

These studies share similar methods of estimation (most often panel data regressions) regressing aggregate spending on ALMPs as a percentage of GDP, sometimes weighted with a proxy for the unemployment level. Table 1 briefly³ summarises the quantitative effects of different determinants on the spending levels of ALMPs that have been identified by the literature. One can observe quite important differences concerning the impact of key variables for theories of what drives welfare state change.

Depending on the study, the level of unemployment is found to have a significant positive or negative relation to ALMPs while in some cases the effect is not significant. Openness has most often a positive effect on ALMPs, but three studies find it to have no significant effect and one article finds a negative effect. Deindustrialisation is consistently found to have a positive effect except in one case. Studies that have looked at EU dynamics find that EU membership has a positive effect while EMU membership has a negative effect on ALMPs. While trade unions are consistently found to be supportive of ALMPs, this can be so for different reasons and through different causal mechanisms: they could do so because it favours labour, because it allows them to extend their membership base or because insiders are like outsiders or there are many labour market outsiders in unions.

³ For reason of parsimony, interaction effects between variables are not specifically considered.

The presence of left parties in government is associated with higher ALMPs but quite often this is found not to be significant and two studies find it has a negative impact⁴. Right wing parties do not have a consistent impact either. Coordination, using a number of different measures, is found to be positively associated with ALMPs. Employers' influence, especially as measured by their degree of organisation, has a positive effect. Public social expenditures has a positive effect, while deficit and debt are found to have different impacts depending on the study. Last but not least, employment protection for regular workers is found to have a negative effect.

Thus, what drives activation spending remains an open question from an empirical perspective. Partly this may result from a false premise concerning the presumed effectiveness of the programs, whereas a number of ALMPs are actually unable to reduce unemployment (Martin and Grubb 2001). This points to the possibility that ALMPs as a category is too broad which makes "it difficult to use the notion of ALMPs as an analytical tool" (Bonoli 2010: 22). Using as a dependent variables aggregate spending on ALMPs may put together programs which are sufficiently heterogeneous to be expected to be driven by different dynamics.

For instance, it is not unreasonable to assume that demand side measures (e.g.: employment creation) and supply side measures (training measures) are likely to be driven by different dynamics whether in structural or in partisan terms. In line with this proposition, the evidence suggests that different actors support different measures. As Bonoli (2010: 23) notes "there is little regularity across time and space of the political forces that are behind major ALMP initiatives" with investment in human capital being supported by both Christian and social democrats while liberal as well as Conservative parties emphasise the reinforcement of incentives.

Hence, while a given actor, such as unions, may support certain measures such as training, they may oppose the introduction of other measures, for instance working tax credits. If both are included under the same spending figure, this may lead to spurious associations between activation and explanatory variables. In sum, there are both empirical (diverse results in the literature), theoretical and historical reasons to doubt that all ALMPs are driven by similar dynamics. The next section investigates whether it makes sense empirically to use an aggregate measure of ALMPs.

⁴ Bonoli (2008) finds left parties to have a negative significant effect on ALMPs while the coefficient on the interaction variable between openness and left parties is positive. Rueda (2007: 92) finds that the difference in Left government has a negative significant effect.

Table 1: Summary of main effects of determinants identified in the literature

Author and Independent variables	Swank (2007)	Van Vliet and Koster (2008)	Bonoli (2008)	Franzese and Hays (2006)	Rueda (2006)	Rueda (2007)	Huo et al (2008)	Armington (2006)	Swank and Martin (2001)	Martin and Swank (2004)	Swank and Martin 2010	Dahlstrom, Lindvall, Rothstein (2009)	Gaston and Rajaguru (2004)	Traxler and Berndt (2009)	Boix (1998)
Unemployment	-	-	+	-	+	0	+	-	+	0	+	0	0	n	+
Openness	+	0	+	+	+	+	0	n	+	-	+(a)	+	0	n	n
Deindustrialisation	+	n	n	+	n	n	n	n	n	+	0	n	n	n	n
EU	+	+	n	n	n	n	n	+	n	n	n	n	n	n	n
EMU	n	-	n	n	n	n	n	n	n	n	n	n	n	n	n
Left	+	0	-	0	0	-	+	0	+	+	+	0	0	0	+
Right	n	-	+(b)	0(c)	n	n	0(c)	n	n	n	-(c)	+(c)	n	n	n
Unions	n	n	n	0	+	0	n	n	n	n	n	+	+	+	+(l)
Employer	n	n	n	n	n	n	n	n	+	+	+	n	n	n	n
GDP growth	+	-	n	n	-	-	n	+	n	n	n	-	n	0	n
GDP level	n	+	0	-	n	n	+	n	-	0	-	0	n	n	n
Coordination	+(d)	+(e)	n	n	0(g)	0	n	n	+(i)	+(i)	+ or - (k)	+(j)	n	+(g)	n
Public social expenditures	n	n	+	+(f)	n	n	n	n	n	n	n	n	n	n	n
Debt	n	+(h)	n	n	-	-(h)	n	n	n	n	n	-	- OR +	n	n
Employment protection	n	n	n	n	-	0	n	n	n	n	n	n	n	n	n

Notes + = positively significant; - = negatively significant; 0 = not significant; n = not considered

(a) Capital mobility but not significant with trade openness

(b) Religious parties in government found significant

(c) Christian democratic parties

(d) Only sector coordination found significant; national coordination insignificant

(e) tripartite council variable found significant

(f) Government consumption

(g) Bargaining centralisation or coverage

(h) Government deficit

(i) Employer coordination

(j) Bargaining coordination

(k) Macroccorporatism

(l) Organisational power of labour index partly based on unionisation of labour force

Legend Where Variable is positively (+) or negatively (-) significant in at least one specification; 0 implies variable was not significant; n suggests it was not considered in the study

3. Does using aggregate ALMPs make sense?

The OECD⁵ provides disaggregated data on spending on seven types of ALMPs: (1) public employment services and administration (placement and related services, benefit administration); (2) training (institutional training, workplace training, integrated training, special support for apprenticeship); (3) job rotation and job sharing; (4) employment incentives (recruitment incentives and employment maintenance incentives); (5) supported employment and rehabilitation; (6) direct job creation; and (7) start up incentives. This categorisation follows from the new classification as introduced by Eurostat in 1998 which the OECD has decided to take up from 2002 onwards (Grubb and Puymoyen 2008).⁶

Throughout, I rely on a sample of fifteen European countries⁷ over the period 1985 to 2007, though data availability varies depending on variables and countries. In this section I focus on categories (2), (4), (5) and (6) for reasons of parsimony, but also because category (1) cover administrative costs across policies⁸, category (3) relates to maintaining people in jobs and has limited data availability and category (7) promotes self employment rather than dependent employment.

Correlation analysis

As shown in Table 2, some of these variables are indeed correlated. For instance, spending on employment incentives and training has a significant positive correlation equal to 0.51 while spending on employment incentives and supported employment and rehabilitation have a significant positive correlation coefficient of 0.29. However, employment incentives and direct job creation have a non-significant coefficient of a small magnitude (0.07) and while the correlation between direct job creation and supported rehabilitation is significant, the coefficient is low at about 0.09.

Table 2: Correlation between various ALMPs

	Training	Employment incentives	Supported rehabilitation	Direct job creation
Training	1	0.5198***	0.2967***	0.2214***
Employment incentives	0.5198***	1	0.2994***	0.0763
Supported rehabilitation	0.2967***	0.2994***	1	0.0926**
Direct job creation	0.2214***	0.0763	0.0926**	1

Legend: * p<.1; **p<.05; *** p<.01

It is therefore very unlikely that direct job creation is driven by similar dynamics as employment incentives and supported rehabilitation.

Table 3 considers the correlation coefficients between these four ALMPs and determinants identified in the literature: Deindustrialisation is proxied by the usual formula as 100 minus the share of employees in services and agriculture; government expenditures refer to final government consumption as a percentage

⁵ All these statistics were extracted from the OECD statistics website at: <http://stats.oecd.org/Index.aspx>.

⁶ Subsequently the OECD has undertaken a harmonisation exercise to ensure its data collected prior to 1998 was consistent with the new classification.

⁷ EU15 minus Luxembourg plus Norway.

⁸ Spending on public employment services are not considered for the correlation analysis but it is included in the regression analysis.

of GDP⁹, deficits are expressed as a percentage of GDP; openness has been computed as the sum of exports and imports divided by the GDP; harmonised unemployment comprise the number of unemployed persons as a percentage of the civilian labour force; union density refers to net union membership as a proportion of wage and salary earners in employment; and party in power is an updated version of the Schmidt index which calculates the composition of the Cabinet composition.¹⁰

Looking at the results of the correlation analysis, a number of determinants have correlation coefficients with similar signs but rarely with the same magnitude. Deindustrialisation is positively correlated with all measures, and the correlation is particularly strong for supported rehabilitation (0.47) but not for the other measures (around 0.2). Government expenditures have a similarly consistent positive correlation with all ALMPs, though it is with training that this correlation is highest (0.46) whereas the correlation with spending on direct job creation is 0.23.

Union density has a consistent significant positive correlation with all types of ALMPs but the range varies from 0.51 in the case of training to 0.20 in the case of direct job creation, suggesting that the importance of unions' membership varies between different programs. Partisanship (left parties in government) is not significantly correlated with any of the ALMPs under consideration though the aggregate measure of ALMPs is significantly correlated with partisanship.

Moreover, variables identified in the literature have correlation coefficients which signs differ depending on the measure under consideration. For instance, deficit is not significantly correlated with the variables under consideration; and while the correlation is positive for supported rehabilitation, it is negative for the other variables. Openness has a significant positive impact on job creation and supported rehabilitation but negative and non-significant correlations with training and employment incentives. Harmonised unemployment has a non-significant positive correlation with training and employment incentives, but is negatively correlated with direct job creation.

Table 3: Introducing previous explanations on disaggregated data

	ALMPs / determinants	ALMPs	Training	Employment incentives	Supported rehabilitation	Direct job creation
Structural / functionalists determinants	Deindustrialisation	0.4758***	0.2251***	0.2322**	0.4758***	0.2306***
	Government expenditure	0.5906***	0.4659***	0.4194***	0.4121***	0.1831***
	Deficit	-0.0013***	-0.0164	-0.0091	0.0558	-0.0075
	Openness	0.2583***	-0.0342	-0.0603	0.3285***	0.4628***
	Harmonised unemployment	-0.0260	0.0058	-0.0409	-0.3541***	-0.1714***
Political dynamics	Union density	0.4860***	0.5167***	0.4667***	0.2540***	0.2048***
	Party in power	0.0266***	0.0137	0.0681	-0.0301	-0.0745

⁹ This is preferred to a more encompassing measure to avoid the problem where the independent variable actually includes the dependent variable, as would indeed be the case if total government expenditures.

¹⁰ The coding is from (1) hegemony of right-wing (and centre) parties (gov_left=0) through to (5) hegemony of social-democratic and other left parties (gov_left=100). Full details can be found in the appendix.

Regression analysis

One could argue however that these apparent differences between the determinants of different programs are a result of the rather crude correlation analysis and that should one take a more sophisticated approach with the appropriate controls, this would not be the case. To address this issue I undertook panel data regression analysis of five dependent variables (the previous four plus spending on Public Employment Services) to investigate whether the previously identified explanatory variables have consistently different effects on spending on different programs. The regression model that is tested is as follows:

$$y_{k,it} = \beta_0 + \sum_j \beta_j x_{j,it} + \sum_p \gamma_p z_{p,it} + \delta_i + \alpha_t \varepsilon_{i,t}$$

where $y_{k,it}$ is the dependent variable k in country i at time t , the x 's are j explanatory variables, the z 's are p controls, the δ_i are $n-1$ country specific effects and the α_t 's are $t-1$ year dummies and $\varepsilon_{i,t}$ is the random residual. More specifically, the vector of explanatory variables is the following:

$$\sum_j \beta_j x_{j,it} = \beta_1 \text{OPEN}_{i,t} + \beta_2 \text{DEIND}_{i,t} + \beta_3 \text{GOVPARTY}_{i,t} + \beta_4 \text{DEN}_{i,t} + \beta_5 \text{WCOORD}_{i,t} + \beta_6 \text{EPL}_{i,t}$$

where OPEN is the degree of openness, DEIND is deindustrialisation, GOVPARTY the measure of partisanship¹¹, DEN the union density, all defined as in the previous section, WCOORD stands for the degree of wage coordination¹² and EPL is the overall index of Employment Protection Legislation¹³ (EPL) developed by the OECD, which was used by Rueda (2007) in investigating empirically his insider-outsider model. The vector of control variables includes:

$$\sum_p \gamma_p z_{p,it} = \gamma_1 \text{GDP}_{i,t} + \gamma_2 \text{HU}_{i,t} + \gamma_3 \text{DEF}_{i,t}$$

where GDP is GDP growth and is included because higher growth of GDP may affect both the cyclical and the discretionary component of policies; HU is harmonised unemployment and DEF is deficit as a percentage of GDP.

As in the previous correlation analysis the sample covers 15 European countries in the period 1985 to 2007 which, given certain missing observations in my dataset, results in about 230 observations. I first run a Feasible General Least Square (FGLS) regression method which results are reported in Table 4. Different columns represent regressions using the same method on the same data but using a different dependent variable. Tests for country dummies showed that they were significant with all dependent variables. This is not the case for all time dummies which inclusion is more justified with some dependent variables than others.

More importantly, few explanatory variables are significant across regressions with different dependent variables. Deficit is the only case where this occurs but this is hardly instructive as it is more appropriately conceived as a control variable. Wage coordination has a significant coefficient in all cases

¹¹ The variable 'govparty' is coded from 1 hegemony of right wing parties in government through to 5 hegemony of social democratic and other left parties in government (See the Appendix for more details). Thus a negative coefficient means that there is an inverse relationship between left parties and the dependent variable.

¹² From 1 = none of the above, fragmented bargaining, mostly at company; to 5 = economy-wide bargaining, based on enforceable agreements between the central organisations. For more details see Appendix.

¹³ More details can be found in the appendix.

except for spending on Public Employment Services (PES). Even in this case, the size of the coefficient varies by a factor of four. The coefficient for GDP growth is not significant and varies in sign.

Union density is not significant for employment incentives or supported rehabilitation while the presence of left wing parties in government, as shown in the coefficient for the “govparty” variable, has a significant negative correlation with these two dependent variables, and is significantly positively related to spending on PES. Similar variation in size, significance and direction of effects can be observed for the remaining independent variables. Deindustrialisation is only significant for direct job creation and the sign varies. Openness has a negative impact throughout but significance is only warranted for the case of PES. Harmonised unemployment is also only significant for PES and the sign varies again. Last but not least, none of the coefficients for overall EPL are significant and the sign varies depending on the dependent variable under consideration.

LR tests of heteroskedasticity and Woodridge test for autocorrelation revealed problems in the residuals. This could mean that the different results for different dependent variables could be the result of violations of the assumptions on which the estimation procedure relies. To address this issue, and following Beck (2001) as well as Beck and Katz (1995), I estimate the same models with Ordinary Least Squares (OLS) Panel Corrected Standard Errors (PCSE), a lagged dependent variable and n-1 country as well as time dummies. Given that the lagged dependent variable and the dummies take up quite a lot of the explanatory power, this model is fairly unforgiving thereby minimising the chance that explanatory variables are shown as significant when in fact they are not. In addition, to further ensure that autocorrelation is addressed, an Autocorrelation of order 1 (AR1) process was added to all the regressions. The results for this estimation procedures are reported in Table 5.

In addition, results for OLS regressions with robust clustered standard errors (Rogers 1993; Williams 2000) and time dummies can be found in Table 6. Another potential issue with my approach is that so far I have only shown that *level effects* vary for different dependent variables whereas some authors in the literature are interested in *change effects*. Thus, I also ran OLS regressions with PCSE taking the first difference of all my variables to look at the impact of a change in the independent variables on the change in the different dependent variables. The results for this approach are shown in Table 7. Last but not least, note that relying on a log-log specification which shows the elasticity of the dependent variable with respect to the independent variables was also investigated, though this is not reported here for reasons of space.

In all these specifications, significant variation in signs, magnitude and significance are observed between different dependent variables. Differences in magnitude, provided that there are small, are not particularly problematic. If there are large then relying on aggregate ALMPs may lead to infer a medium average effect whereas some programs are only marginally affected by the independent variable under consideration while it has large effects on others. Differences in the significance of coefficients for different dependent variables are quite important because then relying on aggregate ALMPs may mean we wrongly infer a significant relationship between two variables where there is in fact none or fail to identify a significant relationship which exists (that is there is a risk of both type I and type II errors).

Differences in signs are crucially important because they indicate different direction of causation which can then imply completely different theories underlying the changes in policies we observe. For instance,

if higher union density leads to lower spending on one policy but to higher spending on another then this means that the degree of inclusiveness or strength that union density is supposed to proxy has different and even opposite effects on the different types of ALMPs. This then has important implications for the validity of studies that case (i.e.: that rely on ALMPs and union density) but also for broader theories of which this is only a case (i.e.: for theories that do not rely on ALMPs but look at the effects of unions on policies such as revitalisation strategies). The same applies to the effect of partisanship which may for instance be different for employment incentives and direct job creation.

Similarly, suppose employment protection legislation was found to have a negative effect on aggregate ALMPs, for instance because insiders are insulated from unemployment risks and hence left leaning parties do not find it electorally advantageous to spend more on ALMPs (which is consistent with Rueda, 2007). If in fact it is indeed negatively related to some measures but also positively related to others then this has potentially valuable implications for the insider-outsider theory of labour market policies.

Where does this leave us? I argued in this section that looking at disaggregated data on ALMPs is necessary. Clearly the point of this section was not to investigate the actual determinants of all these ALMPs but merely to show that these were likely to be different. Investigating what then are the determinants of a program requires looking at it specifically in the context of a clear theory which implications can then be tested empirically. The next section attempts to do just that by considering the case of employment subsidies. There are at least three reasons for choosing employment subsidies among the range of ALMPs. First, total expenditures on subsidies represent the highest time series cross sectional mean of ALMPs as can be seen in Figure 1. Second, there are meaningful differences between different types of employment subsidies which allows us to investigate how different subsidies may be driven by distinct dynamics. If there are differences in the determinants of different employment subsidies represent a least likely case; if we find differences in that case, this makes it very likely that these differences are present for other programs. Third, employment subsidies have a potentially important effect on unemployment (in the case of direct job creation) and wage levels (in the case of employment incentives) which are of particular significance to labour, the government and businesses.

Figure 1: Mean expenditures on main ALMPs – cross-sectional and across time

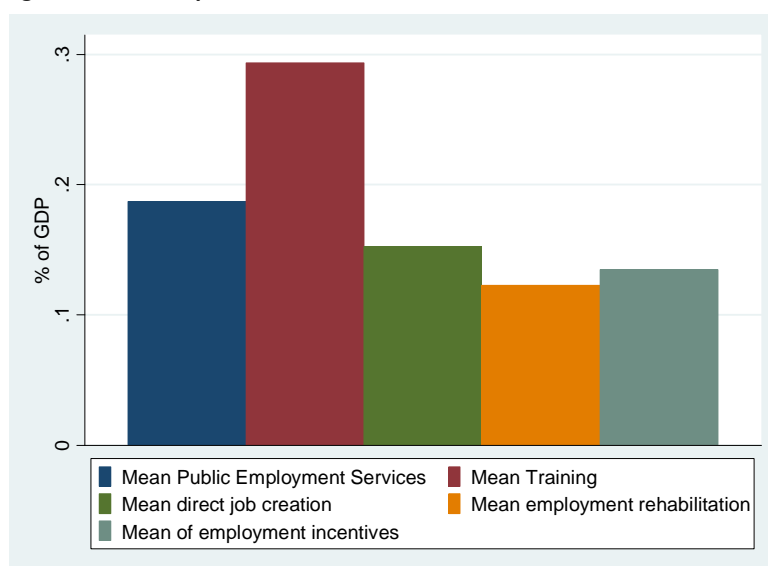


Table 4: Comparing the determinants of different ALMPs - Feasible General Least Squares

<i>Method</i>	<i>General Least Squares, country and time dummies no ar(1) process, no trend</i>					
<i>Dependent variable</i>	ALMPs	Training	Employment incentives	Supported employment rehabilitation	Direct job creation	Public Employment services
<i>Explanatory Variables</i>	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>
<i>Degree of trade openness</i>	-0.0026901	-0.0014034	-0.0003873	-0.0001322	-0.0010214	-0.0012099**
	0.0022246	0.0009541	0.0006909	0.000443	0.0007957	0.0005295
<i>Deindustrialisation</i>	0.0069934	-0.002876	-0.0010643	0.0009661	0.0082163*	0.0033381
	0.012017	0.0052027	0.0037672	0.0024155	0.0043388	0.0028602
<i>govparty</i>	-0.0080096	-0.0028862	-0.0084601***	-0.003808*	-0.0021587	0.0043904**
<i>(Left parties in government)</i>	0.0093188	0.0043478	0.0031464	0.0020174	0.0036238	0.0043904
<i>Union density</i>	0.0357067***	0.010928***	0.0039504	0.0020062	0.0134594***	0.0062007***
	0.007784	0.0036597	0.002647	0.0016972	0.0030486	0.0018527
<i>Degree of wage coordination</i>	0.1383894***	0.0645758***	0.0423387***	0.0144351**	0.0233818*	-0.0002454
	0.0328977	0.014481	0.0104866	0.0067238	0.0120776	0.0078301
<i>Employment protection legislation</i>	0.0074189	-0.0297894	-0.0032906	0.0164128	0.0005182	-0.0027795
	0.0634129	0.0230688	0.0166669	0.0106865	0.0191955	0.0150931
<i>Control variables</i>						
<i>Deficit (% of GDP)</i>	-0.0362247***	-0.0081537***	-0.0097112***	-0.0022127*	-0.0149847***	-0.003135**
	0.0051736	0.0024832	0.0017967	0.001152	0.0020693	0.0012314
<i>Harmonised unemployment</i>	0.0047435	0.0051469	0.0014944	-0.0017893	-0.0027445	0.0039183**
	0.0081573	0.0035722	0.0025813	0.0016551	0.002973	0.0019416
<i>GDP growth</i>	-0.0040015	0.0014504	0.0025952	-0.0031059	-0.0031967	-0.0021032
	0.011433	0.0048871	0.0035362	0.0022673	0.0040727	0.0027212
<i>Lagged dependent variable</i>	no	no	no	no	no	no
<i>Time Trend</i>	no	no	no	no	no	no
<i>Constant</i>	yes	yes	yes	yes	yes	yes
<i>Method</i>	gls	gls	gls	gls	gls	gls
<i>Time Dummies</i>	yes	yes	yes	yes	yes	yes
<i>Country Dummies</i>	yes	yes	yes	yes	yes	yes
<i>Years</i>	1985-2007	1985-2007	1985-2007	1985-2007	1985-2007	1985-2007
<i>Observations</i>	240	261	262	262	262	240
<i>Number of Countries</i>	15	15	15	15	15	15
<i>Wald chi squared Stat</i>	1775.08	962.84	1352.11	3873.52	1077.95	1167.18
<i>Prob > chi2</i>	0	0	0	0	0	0
<i>R Squared</i>	n.a.	n.a	n.a	n.a	n.a	n.a
<i>ARI</i>	no	no	no	no	no	no
<i>Tests for dummies and residuals</i>						
<i>Wald Chi squared (country dummies)</i>	566.68	320.82	691.56	1866.52	330.97	591.11
<i>Prob > chi2</i>	0	0	0	0	0	0
<i>Wald Chi squared (time dummies)</i>	33.06	18.31	32.41	5.8	60.55	25.51
<i>Prob > chi2</i>	0.0111	0.3698	0	0.9944	0	0
<i>Tests when no dummies</i>						
<i>LR Test for heteroskedasticity</i>	169.63	150.29	413.42	797.47	303.13	336.78
<i>Prob > chi2</i>	0	0	0	0	0	0
<i>Wooldridge test for autocorrelation</i>						
<i>F(1, 14) =</i>	395.444	277.337	17.847	73.907	128.327	55.332
<i>Prob > F =</i>	0	0	0.0008	0	0	0
<i>Multicollinearity</i>						
<i>Klein's Rule of Thumb</i>						
<i>Regression with DV</i>	0.5388	0.4763	0.3466	0.4569	0.4734	0.3832
<i>Regression without DV</i>	0.1804	0.1804	0.1804	0.4569	0.1804	0.1804
<i>VIF</i>	No MC	No MC	No MC	No MC	No MC	No MC

Table 5: Comparing the determinants of different ALMPs - OLS with Panel Corrected Standard Errors

<i>Method</i>	<i>Ordinary Least Squares, Lagged Dependent Variable, Panel Corrected Standard Errors, ar(1) and trend</i>				
<i>Dependent variable</i>	Training	Employment incentives	Supported employment rehabilitation	Direct job creation	Public Employment services
<i>Explanatory Variables</i>	<i>VII</i>	<i>VIII</i>	<i>IX</i>	<i>X</i>	<i>XI</i>
<i>Degree of trade openness</i>	-0.0005956	-0.0004151	-0.0001906	-0.001052**	-0.000789***
	0.0005866	0.0003553	0.00016	0.0005284	0.0001533
<i>Deindustrialisation</i>	-0.0010431	-0.0012916	0.0008596	0.0014617	0.0020147**
	0.0024704	0.0024794	0.0008585	0.0017952	0.0007938
<i>govparty</i>	0.0003132	-0.0066111***	-0.0010346	-0.0016441	0.0017336***
<i>(Left parties in government)</i>	0.0027533	0.0024414	0.0009469	0.002391	0.0005683
<i>Union density</i>	0.0042352**	-0.0012738	0.0007991	0.002391*	0.0018367***
	0.0021387	0.0017936	0.0007046	0.0020512	0.0005495
<i>Degree of wage coordination</i>	0.0321654***	0.0370125***	0.007995*	0.0097602	0.005104*
	0.011637	0.0095281	0.0045993	0.0081386	0.0026699
<i>Employment protection legislation</i>	0.0044772	0.0244308	0.0114949**	0.0000443	-0.0060608
	0.0148897	0.0120534	0.0049148	0.0118056	0.0064119
<i>Control variables</i>					
<i>Deficit (% of GDP)</i>	-0.0033459**	-0.0015253	-0.0004227	-0.0054563***	-0.0010457***
	0.0016599	0.001333	0.0005051	0.0013751	0.0003672
<i>Harmonised unemployment</i>	-0.0000533	0.0042936**	-0.0004323	-0.0013631	0.0002478
	0.0023577	0.0019803	0.0007902	0.0021436	0.0006146
<i>GDP growth</i>	0.0014206	-0.0005949	-0.0009017	-0.0039147*	-0.001069
	0.0031006	0.0020485	0.0008522	0.0021654	0.0007453
<i>Lagged dependent variable</i>	0.6251449***	0.7980654***	0.8900824***	0.6979877***	0.8167352***
<i>Time Trend</i>	yes	yes	yes	yes	yes
<i>Constant</i>	dropped	dropped	dropped	dropped	dropped
<i>Method</i>	ols, pcse	ols, pcse	ols, pcse	ols, pcse	ols, pcse
<i>Time Dummies</i>	yes	yes	yes	yes	yes
<i>Country Dummies</i>	yes	yes	yes	yes	yes
<i>Years</i>	1985-2007	1985-2007	1985-2007	1985-2007	1985-2007
<i>Observations</i>	259	261	261	261	236
<i>Number of Countries</i>	15	15	15	15	14
<i>Wald chi squared Stat</i>	6.13E+08	5.95E+09	7.90E+08	6.81E+06	1.10E+12
<i>Prob > chi2</i>	0	0	0	0	0
<i>R Squared</i>	0.8562	0.93	0.9843	0.8805	0.9435
<i>ARI</i>	0.1703064	0.0927796	0.2017153	0.4401464	-0.0293542
<i>Tests for dummies</i>					
<i>Wald Chi squared (country dummies)</i>	59.77	39.2	22.91	38.54	135.13
<i>Prob > chi2</i>	0	0.0003	0.0617	0.0004	0
<i>Wald Chi squared (time dummies)</i>	25014.09	45832.83	25610.97	2900.07	3954.18
<i>Prob > chi2</i>	0	0	0	0	0
<i>Note</i>	<i>Data for Italy is missing in column XI</i>				

Table 6: Comparing the determinants of different ALMPs – OLS with robust clustered standard errors

<i>Method</i>	<i>OLS regression with robust clustered standard errors, no country dummies</i>				
<i>Dependent variable</i>	Training	Employment incentives	Supported employment rehabilitation	Direct job creation	Public Employment services
<i>Explanatory Variables</i>	<i>XII</i>	<i>XIII</i>	<i>XIV</i>	<i>XV</i>	<i>XVI</i>
<i>Degree of trade openness</i>	-0.0024925**	-0.0002809	0.0013058	0.0024444**	0.0012047
	0.0009534	0.0008751	0.0014963	0.0008458	0.0009108
<i>Deindustrialisation</i>	0.0057314	0.0042038	0.0124035**	0.0073611*	0.0067161*
	0.005016	0.0036964	0.005511	0.0038461	0.0031961
<i>govparty</i>	-0.0104774	-0.004068	-0.0046743	-0.0048457	0.005637
<i>(Left parties in government)</i>	0.0097206	0.005972	0.0077176	0.0072629	0.0043746
<i>Union density</i>	0.0047531***	0.0045631**	0.0012419	0.0002838	-0.0008068
	0.001419	0.0022674	0.0016762	0.0010227	0.0009147
<i>Degree of wage coordination</i>	0.0626332**	0.0018404	0.0060805	0.0371555**	-0.001801*
	0.0229962	0.0217126	0.0178942	0.0134032	0.0124542
<i>Employment protection legislation</i>	0.0068643	0.0587476	0.0508423	0.026016	-0.0078543
	0.0361413	0.026834**	0.0279298*	0.0191008	0.0163867
<i>Control variables</i>					
<i>Deficit (% of GDP)</i>	-0.0150879***	-0.0148639	-0.0086062*	-0.0111301*	-0.0076914
	0.0045675	0.0084707	0.0043995	0.0056352	0.0040503
<i>Harmonised unemployment</i>	-0.0010443	0.0058303	-0.0113651	0.0178521**	-0.0035139
	0.0072183	0.0079001	0.0079694	0.0072892	0.006168
<i>GDP growth</i>	0.0113666	0.0025734	-0.0088378	-0.0020301	-0.0054516
	0.0106112	0.0104034	0.0121344	0.0111346	0.0075852
<i>Lagged dependent variable</i>	no	no	no	no	no
<i>Time Trend</i>	no	no	no	no	no
<i>Constant</i>	yes	yes	yes	yes	yes
<i>Method</i>	ols, cluster	ols, cluster	ols, cluster	ols, cluster	ols, cluster
<i>Time Dummies</i>	yes	yes	yes	yes	yes
<i>Country Dummies</i>	no	no	no	no	no
<i>Years</i>	1985-2006	1985-2006	1985-2006	1985-2007	1985-2008
<i>Observations</i>	240	262	262	262	240
<i>Number of Countries</i>	15	15	15	15	15
<i>R Squared</i>	0.5246	0.4092	0.4853	0.5575	0.4094
<i>ARI</i>	no	no	no	no	no
<i>Tests for dummies</i>					
<i>Wald Chi squared (country dummies)</i>	n.a	n.a	n.a	n.a	n.a
<i>Prob > chi2</i>	n.a	n.a	n.a	n.a	n.a
<i>Wald Chi squared (time dummies)</i>	6.57	17.12	2.05	7.92	7.19
<i>Prob > chi2</i>	0.0006	0	0.0955	0	0

Table 7: Comparing the determinants of different ALMPs – OLS, PCSE using first difference of all variables

<i>Method</i>	<i>Ordinary Least Squares, Panel Corrected Standard Errors, ar(1)</i>				
<i>Dependent variable</i>	Δ Training	Δ Employment incentives	Δ Supported employment rehabilitation	Δ Direct job creation	Δ Public Employment services
<i>Explanatory Variables</i>	<i>XVIII</i>	<i>XIX</i>	<i>XX</i>	<i>XXI</i>	<i>XII</i>
<i>Degree of trade openness</i>	-0.0000279	-0.0004383	-0.0001861	-0.0011089***	-0.0007371***
	0.0006231	0.0003288	0.0001465	0.0004175	0.0001999
<i>Deindustrialisation</i>	-0.0023811	-0.0024044	0.0005413	-0.0005606	0.0018451**
	0.0027286	0.002449	0.0008672	0.0015538	0.0009277
<i>govparty</i>	0.0017307	-0.0066131***	-0.0008754	-0.0009167	0.0012798**
<i>(Left parties in government)</i>	0.0027409	0.0023958	0.0008555	0.0019891	0.0006525
<i>Union density</i>	-0.0006216	-0.0030746*	0.0005157	0.0005275	0.0010135
	0.0021304	0.0017139	0.0006606	0.0017532	0.0006394
<i>Degree of wage coordination</i>	0.0221641	0.0417579***	0.0085754*	0.0091327	0.0060742***
	0.0151354	0.0102215	0.0047427	0.0095667	0.0017829
<i>Employment protection legislation</i>	0.0173676	0.0288111**	0.009211**	-0.0008372	-0.0073052
	0.0142485	0.012115	0.0043871	0.0096439	0.0061092
<i>Control variables</i>					
<i>Deficit (% of GDP)</i>	-0.0005577	0.0007745	-0.0001065	-0.001333	-0.0007007*
	0.0018021	0.0011293	0.0004472	0.0011411	0.0003732
<i>Harmonised unemployment</i>	-0.0027822	0.005562***	0.00000848	-0.0003913	-0.0006698
	0.0025205	0.0019645	0.0007615	0.001828	0.0005866
<i>GDP growth</i>	0.0000264	-0.0015281	-0.0009716	-0.0035841*	-0.001066
	0.0032952	0.0020442	0.0008777	0.0020818	0.0009145
<i>Lagged dependent variable</i>	0.0392089	0.0303461	0.0250918	0.2775653***	-0.1163971**
<i>Time Trend</i>	no	no	no	no	no
<i>Constant</i>	yes	yes	yes	yes	yes
<i>Method</i>	ols, pcse	ols, pcse	ols, pcse	ols, pcse	ols, pcse
<i>Time Dummies</i>	yes	yes	yes	yes	yes
<i>Country Dummies</i>	yes	yes	yes	yes	yes
<i>Years</i>	1985-2007	1985-2007	1985-2007	1985-2007	1985-2008
<i>Observations</i>	257	260	260	260	236
<i>Number of Countries</i>	15	15	15	15	14
<i>R Squared</i>	0.1422	0.2731	0.2844	0.3095	0.2161
<i>ARI</i>	no	no	no	no	no
<i>Wald chi squared Stat</i>	122912.5	6.52E+06	5.55E+06	681119.55	4752.56
<i>Prob > chi2</i>	0	0	0	0	0
<i>ARI</i>	no	no	no	no	no
<i>Tests for dummies</i>					
<i>Wald Chi squared (country dummies)</i>	17.01	31.08	23.37	20.58	152.43
<i>Prob > chi2</i>	0.2556	0.0054	0.0545	0.1128	0
<i>Wald Chi squared (time dummies)</i>	3220.85	14340.75	2402.22	2473.18	1260.16
<i>Prob > chi2</i>	0	0	0	0	0

4. The case of Employment subsidies

This section aims to show why it may be analytically useful to look at specific ALMPs by focusing on the case of employment subsidies. It should be noted that only spending which is “targeted” are included; i.e.: spending on programs that are “generally available to employed adults” or “in-work benefits that are available to all employees whose earnings fall below a threshold” are not included (OECD 2010: 2). First, I define the dependent variables. Second, I set out my research questions and explain the model which is being tested. Last, before presenting the results I briefly set out my estimation strategy.

Defining my two dependent variables

For the purpose of this paper, employment subsidies are understood in a broad manner as including any spending in the ALMPs dataset which transfers money upon the employer or the employee either as result of taking up the job or more explicitly by financing the jobs themselves. The category “direct job creation” contains spending measures that “create additional jobs - usually of community benefit or socially useful, and usually in the public or non-profit sector although similar projects in the private sector may also be eligible - for the long-term unemployed or persons otherwise difficult to place” (OECD 2010: 2). Thus, this type of employment subsidies concerns mostly jobs that are non-private. This variable spans 22 years across my sample of 15 countries and among the 345 observations that this creates 6 are missing and 45 are equal to zero.

By contrast, the category “employment incentives” include recruitment and employment maintenance incentives where the former are “programmes making payments for a limited period only to facilitate the recruitment of unemployed persons and other target groups into jobs where the majority of the labour cost is covered by the employer” (OECD 2010: 2). Maintenance refers to programmes that “facilitate continuing employment” for instance in a situation of restructuring. To this category I add “supported employment and rehabilitation” where rehabilitation consists of “vocational rehabilitation for persons with a reduced working capacity which prepares them to move on to work” while supported employment refers to “subsidies for the productive employment of persons with a permanently (or long-term) reduced capacity to work” (OECD 2010: 2). The common features of these programs are that they either target people already in jobs but at risk of losing it or target groups to take up existing jobs. Also, they mostly – though not exclusively - concern jobs in the private sector. I aggregate these two categories and call it for simplicity “other employment subsidies”. This variable spans 22 years across my sample of 15 countries and among the 345 observations that this creates 6 are missing.

Thus, I aim to compare the explanatory power of a model I develop on my two dependent variables: spending on direct job creation and spending on other employment subsidies. Table 8 displays the mean, maximum and minimum for all countries across the period under consideration for both dependent variables. There is significant cross-country variation: the lowest mean spending on direct job creation is in Greece at 0.00217% of GDP and the maximum mean is in Finland at 0.265% of GDP. For other employment subsidies, the minimum mean level of expenditures is also in Greece at 0.06174% of GDP and the maximum is found in Sweden. Figure 2 and Figure 3 shows differences in the evolution of these two variables across time for four group of countries: Scandinavian, Liberal, Southern and other continental countries.

Table 8: Mean, maximum and minimum for direct job creation and other employment subsidies

Countries	Direct Job Creation			Other Employment Subsidies		
	Mean	Min	Max	Mean	Min	Max
Austria	0.03348	0.01	0.04	0.06783	0.03	0.13
Belgium	0.5	0.34	0.81	0.25391	0.16	0.49
France	0.21696	0.04	0.4	0.2	0.06	0.36
Germany	0.20435	0.06	0.41	0.17957	0.07	0.26
Netherlands	0.1487	0.02	0.29	0.60348	0.47	0.7
Greece	0.00217	0	0.01	0.06174	0.02	0.21
Portugal	0.03217	0.01	0.05	0.15087	0.05	0.24
Italy	0.02333	0	0.07	0.165	0.03	0.42
Spain	0.0887	0.04	0.13	0.20174	0.08	0.37
UK	0.04348	0	0.28	0.02696	0.02	0.04
Ireland	0.3213	0.08	0.65	0.06217	0.01	0.13
Finland	0.26522	0.07	0.62	0.18174	0.09	0.29
Norway	0.13043	0.03	0.32	0.15826	0.09	0.22
Sweden	0.19913	0	0.58	0.82826	0.6	1.29
Denmark	0.04636	0	0.18	0.72	0.47	1.03

Figure 2: Evolution of spending on Direct job creation

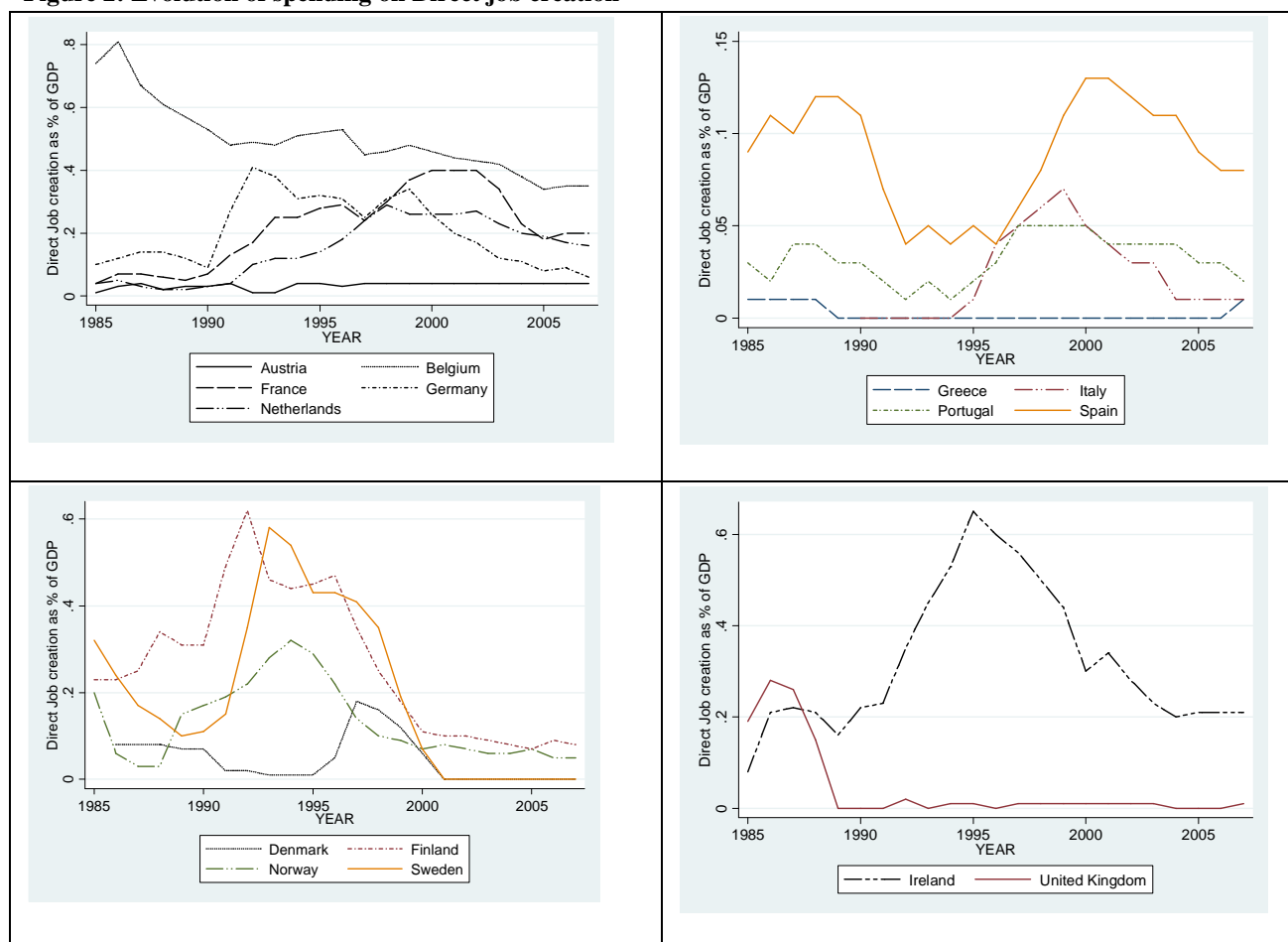
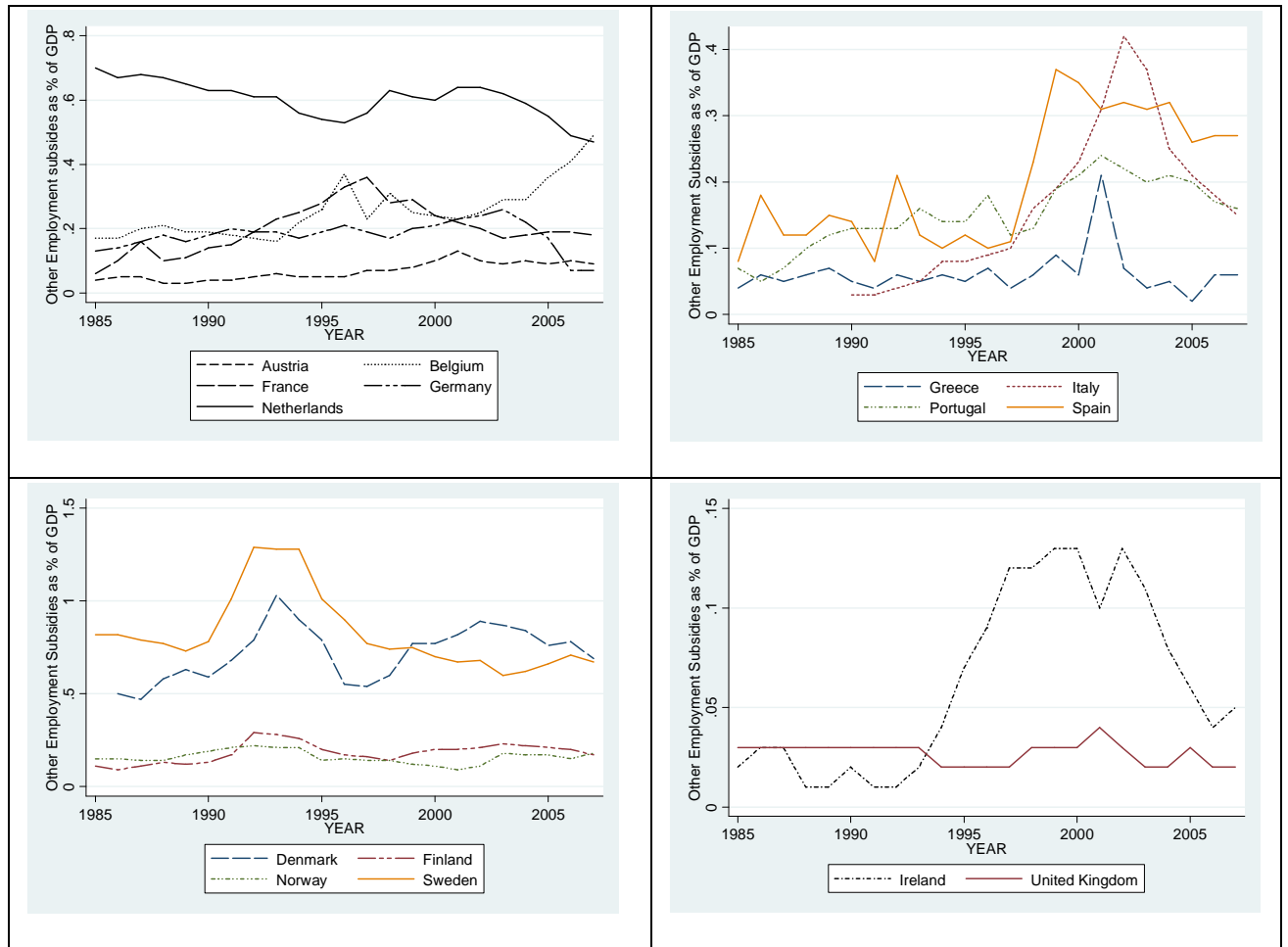


Figure 3: Evolution of spending on other employment subsidies



Questions and theoretical Model

Here I focus on the potential influence of interest groups on the spending effort of my two categories of employment subsidies. The question I try to address is how does the size and strength of different interests groups affect spending levels of my two dependent variables? Building on Rueda (2007), the theoretical framework makes a distinction between three different types of labour: insiders, unemployed outsiders and in-work outsiders¹⁴. My empirical model attempts to estimate the influence of these insider and outsider groups on employment subsidies. More specifically, it analyses how the size and relative strengths of different outsider and insider groups affect the variation in my two dependent variables.

To account for the size of these different groups a number of different explanatory variables are needed. First, I include a measure of union density which serves as a proxy for the size of insiders. This variable is

¹⁴ Rueda (2007) only makes a distinction between insiders and outsiders, but not between different types of outsiders.

often taken to represent the degree of inclusiveness of unions. But this is not adequate because union density may be high without including many labour market outsiders. Instead, I create a new variable “Union outsiders” which is calculated as the share of union members not in formal employment¹⁵. To proxy the strength of insiders, I rely on a measure of bargaining coverage¹⁶ as the ability of unions to make agreements concerning the wages of workers is probably more important than their size or inclusiveness in determining their overall strength.

For outsider groups, I rely on the share of temporary workers and the share of part time workers to proxy the size of labour market outsiders that are in work, and harmonised unemployment rates for outsiders not in work. As my dependent variables may affect all three variables accounting for the size of the outsider groups, they are lagged one period. I introduce a proxy for in-work outsiders strength in the form of Employment Protection Legislation (EPL) for temporary workers. Indeed, relying on overall EPL misconstrues the protection of regular workers and that of temporary workers. To establish the influence of insiders on spending on my dependent variables I initially focus on EPL for regular workers and the coverage of bargaining. Last but not least, I include as a control a measure of countries aggregate national income using as a proxy GDP.

Thus, the model considers how spending on my two dependent variables is related to insiders (union density, bargaining coverage and EPL for regular workers) and to outsiders (EPL for temporary workers, share outsiders in unions, share of temporary and part time employment). My expectation here is that EPL for regular workers (i.e.: insiders) is negatively related to spending on other employment subsidies because this increases job competition and to the extent that it lowers workers reservation wages leads to downwards pressures on earnings. I further expect the effect to be of a similar sign but lower magnitude when it comes to direct job creation. This is because though insiders still have to finance these policies, this does not put as much downward pressures on wages. However, it could also be that lower spending on direct job creation is associated with lower EPL for regular workers because both are part of a process to undermine the *acquis social* of insiders.

Union density if it raises inclusiveness will be positively related to these measures if an ‘olsonian logic’¹⁷ prevails and negatively related if the ‘corporatist logic’ prevails (Rueda 2007: 82). The measure of outsiders’ presence in unions is calculated as the share of union members not in formal employment. This is arguably a crude measure as it not only includes part time, temporary and unemployed workers but also retired workers; still it represents an improvement compared with the assumption that high union density necessarily increases representativeness. If labour market outsiders favour these policies and have an effect on them, then it is reasonable to expect this measure to be positively related to spending on subsidies.

¹⁵ It should be noted that this variable has 35 missing observations and 38 zero values in my sample, leaving only 272 positive values.

¹⁶ “Employees covered by wage bargaining agreements as a proportion of all wage and salary earners in employment with the right to bargaining, expressed as percentage” (see appendix)

¹⁷ That is if higher union density enables unions to better internalise the interests of the outsiders

Bargaining coverage to the extent that it minimises the risk of downward pressure on wages should be positively related to my dependent variables. It is also a proxy for the strength of unions and hence could indicate how union strength is related to employment subsidies. If higher spending on these policies is the result of a greater ability of outsiders to promote their interests, my dependent variables should be positively associated with EPL for temporary workers. The size of groups (temporary and part time workers, and unemployed) can either be positively correlated if more outsiders through higher need positively affect the spending efforts on these policies or negatively related if it indicates poor representation of marginal groups and their inability to become insiders. Finally, all else equal, GDP is normally assumed to be positively related to welfare spending.

Two further variables are considered in an augmented model. Insiders can be expected to favour these policies more in certain contexts than others. One relevant aspect was mentioned: bargaining coverage enables insiders to mitigate the negative effects of certain employment subsidies. Similarly, I test how a measure of wage coordination is related to these subsidies. I expect wage coordination to be positively related to my dependent variables as higher coordination may prevent downward pressures on wages. Last but not least, I examine how these policies are related to the situation of unemployed workers. To do so I add a measure of the replacement rates to capture the generosity of unemployment benefit systems.

Empirical model and estimation strategy

My generic model is as follows: $y_{i,t} = \beta_0 + \alpha_0 y_{i,t-1} + \sum_j \beta_j x_{j,it} + \sum_p \gamma_p z_{p,it} + \delta_i + \alpha_t \epsilon_{i,t}$; where $y_{i,t}$ is my dependent variable in country i at time t , $y_{i,t-1}$ is the lagged dependent variable, the x 's are j explanatory variables, the z 's are p controls, the δ_i are $n-1$ country specific effects and the α_t 's are $t-1$ year dummies and $\epsilon_{i,t}$ is the random residual. More specifically, there is only one control (i.e.: $p = 1$) so that: $\sum_p \gamma_p z_{p,it} = \gamma_1 \text{GDP}$; and the vector of explanatory variable includes:

$$\sum_j \beta_j x_{j,it} = \beta_1 \text{DEN} + \beta_2 \text{COV} + \beta_3 \text{UO} + \beta_4 \text{EPLreg} + \beta_5 \text{EPLtemp} + \beta_6 \text{TEE} + \beta_7 \text{PTE} + \beta_8 \text{HU}$$

where DEN is union density, COV is bargaining coverage, UO is the share of outsiders in unions, EPLreg and EPLtemp are employment protection legislation for regular and temporary workers, respectively; TEE and PTE are the share of temporary and part time employment respectively and HU is the harmonised rate of unemployment.

A Hausman test suggests we need to use fixed effects. I start by estimating both models using Feasible General Least Squares (FGLS). A test of joint significance of my time and country dummies reveals that they are significant in the regressions of both of my variables. However, including country dummies is problematic because it takes most of the explanatory power of variables that change slowly such as institutions. Some of my variables captures institutional aspects so their explanatory power may be reduced by the country dummies. The good news is that this implies my model provides a tough test for my variables.

The Likelihood-ratio heteroskedasticity test rejects the null hypothesis of no heteroskedasticity in both regressions. The Wooldridge test for autocorrelation rejects the null hypothesis of no autocorrelation. This is a problem because as Beck (2001: 278) notes: "FGLS correction for panel heteroskedasticity is ...inherently flawed." A way around this issue is to estimate the regression using standard OLS and to compute Panel Corrected Standard Errors (PCSEs) to address heteroskedasticity and to include a lag of the dependent variable to deal with serial correlations of the errors (ibid: 282).

This ‘Beck Katz standard’ (Beck and Katz 1995; Beck and Katz 1996; Beck 2001) is widely used in the comparative political economy literature. However, the Beck-Katz standard has also been criticised because it generates the following issues: “absorption of cross sectional variance by unit dummies, absorption of time series variance by the lagged dependent variable and period dummies” (Plumper, Troeger et al. 2005: 327). To address these issues, I run a regression with country and time dummies but no lagged dependent variable and include instead a Prais Winsten transformation (AR1 process) (ibid: 342).

5. Results and discussion

I report for reference the results for both methods (FLGS and OLS with PCSE) in Table 9. Note that n-1 country and n-1 time dummies were included in the regression but are not shown. In addition, columns V and VI report the results for the same model relying on a regression which has country dummies but drops the lagged dependent variable and introduces instead an AR(1) process. I run another four regressions including first a measure of wage coordination (columns III and IV in Table 10) and then of the generosity of unemployment benefit systems (columns V and VI). In columns I and II of Table 10, the baseline regressions are reproduced to facilitate comparison of the results. What are the implications of the results presented in columns three and four of Table 9?

The impact of insiders’ institutions on employment subsidies

The effect of EPL for regular workers is negative which is consistent with the argument that when insulated from labour market risks, workers have less incentives to push for more policies that address these risks. It is noteworthy that the effect is much stronger in the case of other employment subsidies, which suggests that once standard workers are insulated from labour market risks they will be particularly reluctant to support other employment subsidies.

But EPL for regular workers is only one way to look at the relation between insiders and employment subsidies. If employment protection and labour market policies are substitutes, then a negative relation between the two variables is not in itself indicative of insiders’ interests or preferences. Looking at insiders’ institutions it is particularly noteworthy that bargaining coverage and union density do not have a significant effect on other employment subsidies. Thus, spending on this measure does not seem to be driven by insiders’ and unions’ institutions: neither the size of unions nor their ability to set wages across the board have an effect on expenditures on other employment subsidies.

Direct job creation by contrast is negatively related to union density. Since the share of outsiders in unions accounts for the degree of inclusiveness, union density cannot be interpreted as the degree to which outsiders are represented. Given that union density is sometimes taken as an indication of union strength, this would suggest that trade unions do not want direct job creation.

However, the significant positive relation between bargaining coverage and direct job creation suggests otherwise. Indeed, high union density may be a sufficient condition for union strength but it may not be a necessary condition. The ability of unions to set wages across the board may also be a relevant indicator of their strength. If bargaining coverage is high this may also reduce incentives for unions to extend their membership. Another plausible explanation is that high coverage allows the unions to ensure that job creation does not have adverse effects on the wages of their members, but it is not clear why direct job

creation would put downward pressure on wages. Last, if the jobs created are themselves covered by agreements, this could also provide an explanation for the positive relation.

To further investigate the effects of insiders' institutions, columns III and IV in Table 10 presents an augmented regression with a measure of wage coordination. It is negatively related to direct job creation and positively related to other employment subsidies. The latter effect is consistent with the idea that insiders will be more willing to support subsidies if these do not undermine their ability to set wages, the stronger the level of wage coordination the better they will cope with the pressures that subsidies may generate. On the other hand, the negative relation between coordination and direct job creation may be construed as a trade off between substitutes; both represent ways to ensure wages for core workers remain high. Inclusion of wage coordination did not change the effect of other variables in any significant way.

Size, strength and welfare of different outsider groups

The effect of the size of different outsider groups on the level of spending is also significant. Lagged unemployment has a significant negative effect on direct job creation but a positive effect on other employment subsidies. Thus, different subsidies are not necessarily all related to the need to address unemployment. The share of part time workers does not have any significant impact on either type of subsidies. If trade unions are behind employment subsidies, and if they support subsidies because it helps part timers, then revitalisation may be driven more by union problems than by the size of the population at risk. Higher share of workers on temporary contracts by contrast has a positive effect on direct job creation but none on other employment subsidies. Hence, economies that rely more on temporary work also do tend to undertake direct job creation¹⁸.

My measure of outsiders in unions is positively related to spending on both types of employment subsidies, with the effect being stronger for other employment subsidies. This is consistent with the recent literature on unions' revitalisation strategies where unions try to revitalise their membership base by supporting policies that benefit workers beyond their core membership (Clegg, Graziano et al. 2010).

However, EPL for temporary workers has a significant positive relation with direct job creation but not with other employment subsidies. This is interesting given that the relationship between the share of outsiders in unions is stronger with other employment subsidies than it is with direct job creation. What this suggests is that, though the presence of outsiders in unions is more important in explaining other employment subsidies, it does not follow that they are generally most able to defend their interests in the context of high other employment subsidies. By contrast, direct job creation which is driven by the strength of insiders is associated with higher EPL for temporary workers.

Last but not least, to analyse the relation between the unemployed and employment subsidies, columns V and VI in Table 10 presents the result when the regression is augmented with a measure of replacement rates. This measure is significantly positively related with direct job creation but has no significant effect on other employment subsidies. Therefore, systems in which unemployed workers are better off, have

¹⁸ All these results are robust to the exclusion of my variable union outsiders which had incomplete data availability. There are two exceptions where exclusion makes a difference: First, the effect of EPL for temporary workers become significant for both dependent variable; second, union density becomes significant for both dependent variable. In both cases this is consistent with an omitted variable bias which is then picked up by these variables.

higher levels of direct job creation. High replacement rates are not only important for unemployed but also for unions whose legitimacy partly stems from unemployment benefit systems and to employed people as high unemployment benefits ensures the reservation wages of unemployed workers remain high. Recall that EPL for temporary workers was also positively related to direct job creation. Thus, direct job creation seems to be positively associated with both better employment conditions for temporary workers and higher replacement rates for unemployed workers. But we also found that higher bargaining coverage, a proxy for unions strengths, is positively associated with direct job creation. Insiders therefore may be driving certain policies which may also be consistent with outsiders' interests.

Overall, this suggests that both insiders and outsiders favour direct job creation while other employment subsidies seems to be associated only with outsiders' strength (as proxied by their presence in unions). Outsiders' welfare whether in the case of the unemployed (replacement rate) or temporary workers (EPL for temporary workers) is positively related only to direct job creation.

Table 9: Regression results for initial model

Column	I	II	III	IV	V	VI
Dependent variable	DJC	OES	DJC	OES	DJC	OES
Method	FGLS	FLGS	OLS PCSE	OLS PCSE	OLS AR(1)	OLS AR(1)
Union density	-0.0046	0.0054*	-0.0021***	0.0022	-0.0015	0.0060***
Bargaining Coverage	0.0067***	-0.0015	0.0015***	-0.0003	0.0048***	-0.0002
Union outsiders	0.0052**	0.0123***	0.0013***	0.0038***	0.0062***	0.0090***
EPL regular workers	0.025	-0.1139***	-0.0110*	-0.0429***	-0.0074	-0.0520***
EPL temporary workers	0.0361***	-0.0339***	0.0089***	0.0031	0.0314***	-0.0046
Share of temporary workers (lagged one period)	0.0095***	-0.0129***	-0.0011*	-0.0061***	0.0036***	-0.0066**
Share of part time workers (lagged one period)	-0.0016	-0.0045	0.0012	0.0014	-0.0005	-0.0036
Harmonised Unemployment rate (lagged one period)	-0.0092***	0.0018	-0.0026**	0.0037***	0	0.003
Gross Domestic Product	0	0	0	0	-0.0000***	0
Direct Job creation (lagged one period)			0.7731***			
Other Employment Subsidies (lagged one period)				0.7030***		
Constant	-0.2298	0.0888	-0.0283	-0.0586	-0.1953***	-0.0507
Number of observations	211	211	209	209	211	211
Prob > chi2	0	0	0	0	0	0
R2			0.9685	0.9688	0.7355	0.8529
Time dummies	yes	yes	yes	yes	yes	yes
Rho					0.7006129	0.5594711

Legend: * p<.1; **p<.05; *** p<.01

Table 10: Augmented model with wage coordination and replacement rates

Column	I	II	III	IV	V	VI
Dependent variable	DJC	OES	DJC	OES	DJC	OES
Method	OLS PCSE	OLS PCSE	OLS PCSE	OLS PCSE	OLS PCSE	OLS PCSE
Union density	-0.0021***	0.0022	-0.0019***	0.0015	-0.0014	-0.0028
Bargaining Coverage	0.0015***	-0.0003	0.0015***	-0.0003	0.0028***	0.0012
Union outsiders	0.0013***	0.0038***	0.0014***	0.0034**	0.0008	0.0017
EPL regular workers	-0.0110*	-0.0429***	-0.0122**	-0.0384***	0.013	-0.0421***
EPL temporary workers	0.0089***	0.0031	0.0082***	0.0054	0.0278***	0.0026
Share of temporary workers (lagged one period)	-0.0011*	-0.0061***	-0.0013**	-0.0054***	-0.0028***	-0.0038**
Share of part time workers (lagged one period)	0.0012	0.0014	0.0012	0.0013	0.0036***	0.0015
Harmonised Unemployment rate (lagged one period)	-0.0026**	0.0037***	-0.0029**	0.0048***	-0.0032***	0.0078***
Gross Domestic Product	0	0	0	0	0	0
Wage coordination			-0.0067*	0.0210***	-0.0147***	0.0266**
Replacement rate index of generosity					0.0035***	-0.001
Direct Job creation (lagged one period)	0.7731***		0.7767***		0.7399***	
Other Employment Subsidies (lagged one period)		0.7030***		0.7136***		0.7276***
Constant	-0.0283	-0.0586	-0.0285	-0.0567	-0.1789***	0.0348
Number of observations	209	209	209	209	159	159
R2	0.9685	0.9688	0.9687	0.9695	0.9724	0.9684
Prob > chi2	0	0	0	0	0	0
Time dummies	yes	yes	yes	yes	yes	yes
Country dummies	yes	yes	yes	yes	yes	yes

6. Conclusion

This paper questioned whether existing approaches relying on aggregate data on ALMPs are valid. Using different estimation methods and different specifications of the dependent variables I showed how the determinants of ALMPs identified in the literature review have different relations to different components of ALMPs; indeed the magnitude, sign and significance of the coefficients varied significantly between different ALMPs. This result was robust to different estimation method and specification of the dependent variable.

In a second part, the case of employment subsidies was instrumental in illustrating the potential added analytical value of focusing on specific programs. This was shown by testing a model which has implications for the ways the insider-outsider structure of labour markets affect policies. Analysing specific ALMPs allows us to better construe the relation between different actors and specific ALMPs. While the assumption of homogenous labour interests was not made *a priori* neither were different labour market groups assumed to have necessarily stable or different interests and positions with respect to all ALMPs.

The analysis considered how the size and proxies for the strength of different labour market groups are related to spending on employment subsidies. This was arguably a fairly preliminary and crude analysis rather than a full blown model of policy determinants, but it nevertheless revealed a number of important findings. With respect to the size of outsider groups, the share of part time employment has no significant effects on employment subsidies, whereas the share of temporary workers has a positive impact only on spending on direct job creation. Higher unemployment result in increased spending on other employment subsidies while the reverse is true for direct job creation.

Direct job creation was found to be positively related to both insiders (union density and bargaining coverage) and outsiders (share of outsiders in unions) strength. On the contrary, other employment subsidies were not found to be driven by union or insiders institutions. Both types of subsidies were negatively related to EPL for regular workers which is consistent with the view that higher employment protection of regular workers is related to less spending on employment subsidies.

The share of outsiders in unions has a positive effect on both types of subsidies. However, the fact that EPL for temporary workers and the replacement rate was positively related only to direct job creation suggests that there may be a difference between the two types of subsidies for outsiders' welfare. Direct job creation is higher the better off in-work and out-of-work labour market outsiders are. Alternatively this could mean that political economies which rely on direct job creation are generally more conducive to higher outsiders' welfare. Similarly, in light of the positive association between bargaining coverage and direct job creation, this highlights the possibility to carry out ALMPs that are advantageous to both insiders and outsiders.

Overall, these findings question the validity of approaches that rely on aggregate ALMPs and show that insiders as well as outsiders' composition and strengths have different relations to different types of employment subsidies. As a result, analysing the interaction between different ALMPs and different labour market groups may be a potentially valuable avenue for further research.

APPENDIX

Table 11: List of variables

Full name	Description	Source
Active measures	Sum of PES and administration, training, job rotation and job sharing, employment incentives, supported employment and rehabilitation, direct job creation, start up incentives	OECD
PES and administration	<p>1.1 Placement and related services include open information services, referral to opportunities for work, training and other forms of assistance, counselling and case management of jobseekers, financial assistance with the costs of job search or mobility to take up work, and job brokerage and related services for employers, if spending on these functions can be separately identified. Services provided by the main public employment service and by other publicly-financed bodies are included.</p> <p>1.2 Benefit administration expenditure includes the budget of institutions that manage the unemployment and early retirement benefits reported in Categories 8 and 9, if this spending can be separately identified.</p> <p>1.3. Other expenditure includes the budget of institutions that provide placement and related services (if the relevant spending could not be separately reported in Category 1.1 above); institutions that manage labour market programmes in Categories 2 to 7 below (except for costs already included in these categories); and institutions that administer the benefits in Categories 8 and 9 below (if these costs could not be separately identified in Category 1.2 above). However if these institutions' budgets cover functions that are outside the scope of this database (neither placement and related services, nor the management of active or passive labour market programmes within the scope of Categories 2 to 9), estimated spending on those functions should be excluded.</p>	OECD
Training	<p>2.1 Institutional training refers to programmes where most of the training time (75% or more) is spent in a training institution (school/college, training centre or similar).</p> <p>2.2 Workplace training refers to programmes where most of the training time (75% or more) is spent in the workplace.</p> <p>2.3 Alternate training (formerly called Integrated training) refers to programmes where training time is evenly split between a training institution and the workplace.</p> <p>2.4 Special support for apprenticeship refers to programmes providing incentives to employers to recruit apprentices from labour market policy target groups, or training allowances for particular disadvantaged groups.</p>	OECD
Job rotation and job sharing	<p>3.1 Job rotation refers to schemes promoting the full substitution of an employee by an unemployed person or a person from another target group for a fixed period.</p> <p>3.2 Job sharing refers to schemes promoting the partial substitution of an employee by an unemployed person or a person from another target group.</p>	OECD
Employment incentives	<p>4.1 Recruitment incentives are programmes making payments for a limited period only to facilitate the recruitment of unemployed persons and other target groups into jobs where the majority of the labour cost is covered by the employer. They include payments to individuals that are conditional upon the takeup of a new job (back-to-work bonus, mobility/relocation allowance or similar) only if they are targeted (e.g. restricted to the long-term unemployed).</p> <p>4.2 Employment maintenance incentives are similar but facilitate continuing employment, in a situation of restructuring or similar. Generally-available in-work benefits for low-income groups should not be included.</p>	OECD

Full name	Description	Source
Supported employment and rehabilitation	5.1 Supported employment consists of subsidies for the productive employment of persons with a permanently (or long-term) reduced capacity to work. These measures typically provide ongoing support and have no planned duration. However, lifetime sheltered work provisions are normally considered as part of social policy and outside the scope of the database. This subcategory combines and largely replaces the former subcategories 5.1 Regular employment and 5.2 Sheltered employment, but recruitment incentives payable for a fixed period to the employer or the disabled worker upon hiring in a regular job should now appear in Category 4.1.5.2 Rehabilitation refers to vocational rehabilitation for persons with a reduced working capacity which prepares them to move on to work or regular training. Social and medical rehabilitation are not included. This subcategory largely replaces the former subcategory 5.3 Other rehabilitation and training, but participation by disabled workers in regular training as distinct from rehabilitation should now appear in Category 2.	OECD
Direct job creation	These programmes create additional jobs - usually of community benefit or socially useful, and usually in the public or non-profit sector although similar projects in the private sector may also be eligible - for the long-term unemployed or persons otherwise difficult to place. The majority of the labour cost is normally covered by the public finance. Provisions for lifetime sheltered work in a non-productive environment should not be included. The former subcategories 6.1 Permanent and 6.2 Temporary (which were largely redundant since few countries reported permanent direct job creation) are no longer implemented.	OECD
Start-up incentives	Programmes that promote entrepreneurship by encouraging the unemployed and target groups to start their own business or to become self-employed.	OECD
Out-of-work income maintenance and support	8.1.1 Unemployment insurance refers to benefits payable to workers satisfying criteria for membership in an unemployment insurance scheme. These are often paid only for a limited period. 8.1.2 Unemployment assistance refers to benefits payable to workers either failing to satisfy criteria for membership in an unemployment insurance scheme or who have exceeded the period for entitlement to unemployment insurance benefit. Unemployment assistance is normally means tested. 8.2 Partial unemployment benefits refer to benefits compensating for the loss of wage or salary due to short-time working arrangements, and/or intermittent work schedules, where the employer/employee relationship continues. 8.3 Part-time unemployment benefits refer to benefits paid to persons working part-time who have lost a full-time job or an additional part-time one and are seeking to work more hours. 8.4 Redundancy compensation refer to capital sums paid from public funds to employees who have been dismissed through no fault of their own by an enterprise that is ceasing or cutting down its activities. 8.5 Bankruptcy compensation refers to capital sums paid from public funds to employees to compensate for wages not paid by the employer due to bankruptcy/insolvency.	OECD
Trade Union density	Trade union density corresponds to the ratio of wage and salary earners that are trade union members, divided by the total number of wage and salary earners (OECD Labour Force Statistics). Density is calculated using survey data, wherever possible, and administrative data adjusted for non-active and self-employed members otherwise.	OECD

Full name	Description	Source
Harmonised Unemployment rate	The harmonised unemployment rates shown in this table give the numbers of unemployed persons as a percentage of the civilian labour force. Civilian labour force consists of civilian employees, the self-employed, unpaid family workers and the unemployed. The definitions of employment and unemployment conform with the definitions adopted by the 13th Conference of Labour Statisticians (generally referred to as the ILO guidelines) with the exception that employment and unemployment estimates are based on labour force surveys which cover only private households and exclude all people living in institutions. Under these guidelines the unemployed are persons of working age who, in a specified period, are without work and are both available for and are actively seeking work. The Statistical Office of the European Communities (Eurostat) gave a more precise definition of unemployment through the Commission Regulation (EC), no.1897/2000 in September 2000. Details about this new definition and its implementation are available on Eurostat Internet site: http://europa.eu.int/comm/eurostat/ .	OECD
Employment protection legislation overall	Additional costs for collective dismissals: most countries impose additional delays, costs or notification procedures when an employer dismisses a large number of workers at one time. This measure includes only additional costs which go beyond those applicable for individual dismissal. It does not reflect the overall strictness of regulation of collective dismissals, which is the sum of costs for individual dismissals and any additional cost of collective dismissals	OECD
Employment protection legislation regular	Individual dismissal of workers with regular contracts: incorporates three aspects of dismissal protection: (i) procedural inconveniences that employers face when starting the dismissal process, such as notification and consultation requirements; (ii) notice periods and severance pay, which typically vary by tenure of the employee; and (iii) difficulty of dismissal, as determined by the circumstances in which it is possible to dismiss workers, as well as the repercussions for the employer if a dismissal is found to be unfair (such as compensation and reinstatement).	OECD
Employment protection legislation temporary	Regulation of temporary contracts: quantifies regulation of fixed-term and temporary work agency contracts with respect to the types of work for which these contracts are allowed and their duration. This measure also includes regulation governing the establishment and operation of temporary work agencies and requirements for agency workers to receive the same pay and/or conditions as equivalent workers in the user firm, which can increase the cost of using temporary agency workers relative to hiring workers on permanent contracts.	OECD
Incidence of part time employment in total employment	This table contains incidences and gender composition of part-time employment with standardised (15-24, 25-54, 55-64, 65+, total) and detailed age groups. Data are further broken down by professional status - employees, total employment. Part-time employment is based on a common 30-usual-hour cut-off in the main job.	OECD
Share of temporary employment in dependent employment	This table contains incidences and gender composition of temporary employment with standardised age groups (15-24, 25-54, 55-64, 65+, total). Data are further broken down by professional status - employees, total employment.	OECD

Full name	Description	Source
Cabinet composition	Cabinet composition (Schmidt-Index): (1) hegemony of right-wing (and centre) parties (gov_left=0), (2) dominance of right-wing (and centre) parties (gov_left<33.3), (3) balance of power between left and right/centre (33.3<gov_left<66.6), (4) dominance of social-democratic and other left parties (gov_left>66.6), (5) hegemony of social-democratic and other left parties (gov_left=100). Calculations of authors based on gov_right1, gov_cent1, and gov_left1. Period covered: 1990-2008. Missings: Bulgaria 1993/94 (non-party government), Italy 1995 (caretaker government). Information was not available for Romania 1990 and Slovenia 1992. Source: Own calculations according to Schmidt (1992).	Comparative Political Data Set III, 1990-2008
Coordination of wage bargaining	5 = economy-wide bargaining, based on a) enforceable agreements between the central organisations of unions and employers affecting the entire economy or entire private sector, or on b) government imposition of a wage schedule, freeze, or ceiling. 4 = mixed industry and economy-wide bargaining: a) central organisations negotiate non-enforceable central agreements (guidelines) and/or b) key unions and employers associations set pattern for the entire economy. 3 = industry bargaining with no or irregular pattern setting, limited involvement of central organizations and limited freedoms for company bargaining. 2 = mixed industry- and firm level bargaining, with weak enforceability of industry agreements 1 = none of the above, fragmented bargaining, mostly at company level ; note - before 1990: West Germany	ICTWSS database
Total Union Membership	$TUM = \sum MemCf_{1-8} + MindU$; where $\sum MemCf_{1-8}$ is the sum of total membership of unions affiliated to confederation 1 to 8 (where $MemCf_1$ is the sum of members of affiliates in confederation 1); and $MindU$ is the membership of independent unions (which is the sum of members of independent or unaffiliated unions)	ICTWSS database
Net Union Membership	TUM minus union members outside the active, dependent and employed labour force (i.e. retired workers, independent workers, students, unemployed (see: Visser 1991; Ebbinghaus and Visser 2000; Traxler 2006)	ICTWSS database
Wage and Salary Earners in Employment	Sum of employed wage and salary workers	ICTWSS database
Unionised outsiders	% of union members not in active of outsiders in unions $(TUM-NUM)/TUM*100$	ICTWSS database (my computations)

Full name	Description	Source
Government expenditures as % of GDP	Section 11. described the concept of general government final consumption, reflecting the contribution government makes as a consumer of final goods and services for individual and collective consumption. Whilst useful in illustrating the scope for government to stimulate demand directly, it does not tell the full story. For a start the measure does not include GFCF of government which is an area where the scope to stimulate demand is considerable. But it also excludes other components of spending by government not recorded as final consumption, for example, debt interest payments, and cash transfers, such as social benefits, which, collectively, better reflect the size of government and its ability to stimulate demand, without changing taxes say, both directly and indirectly. The concept that best reflects this overall expenditure is referred to as general government expenditure. It reflects the total amount of expenditure by government that needs to be financed via revenues, such as taxation, and borrowing.	OECD
Openness	(Import of goods and services + export of goods and services at current price in national currency) / Gross domestic product at current market prices (UVGD) in national currency	AMECO
Gross Domestic Product	Gross domestic product at current market prices (UVGD)	AMECO
GDP growth	Period covered: 1960-2008. Missing: Australia: 1991; Germany: 2002; Greece: 1990; Italy: 2003; New Zealand: 1990; Spain: 1979; Luxembourg and Portugal: 2008. Source: Until 1970: OECD Economic Outlook, various years; 1971 onwards: OECD Factbook 2010: Economic, Environmental and Social Statistics - Online Version, http://new.sourceoecd.org/ (Download: 2010-06-11). Note: UK 1971-1980: data is taken from OECD Factbook 2009.	Comparative Political Data Set I, 1990-2008
Deindustrialisation	Following Iversen and Soskice; deindustrialization. 100 minus the sum of manufacturing and agricultural employment as a percentage of the working-age population. - OECD, Labour Force Statistics (Paris: OECD, various years); and transfer data	OECD
Deficit	Annual deficit (government primary balance) as a percentage of GDP. Period covered: 1970-2008. Missing: Denmark: 1970; Luxembourg and Switzerland: 1970-89; New Zealand 1970-85; Portugal: 1970-76. Source: SourceOECD, OECD Economic Outlook Database, Economic Outlook: Annual and quarterly data, Vol. 2009, release 03, http://new.sourceoecd.org/ (Download: 2010-02-03).	Comparative Political Data Set I, 1990-2008
Union density	UD: Union Density, net union membership as a proportion wage and salary earners in employment (0-100) = $NUM*100/WSEE$	ICTWSS
Replacement rate	This indicator is coded “brr_oecd (%)” in the CEP-OECD database. These are the original benefit replacement rates data published by the OECD. It is defined as the average across the first five years of unemployment for three family situations and two money levels taken from www.oecd.org/els/social/workincentives and interpolated.	CEP-OECD

Full name	Description	Source
Bargaining (or Union) Coverage	Employees covered by wage bargaining agreements as a proportion of all wage and salary earners in employment with the right to bargaining, expressed as percentage, adjusted for the possibility that some sectors or occupations are excluded from the right to bargain (removing such groups from the employment count before dividing the number of covered employees over the total number of dependent workers in employment WSEE; see Traxler, 1994)	ICTWSS

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