

The Economic Rationale of Non-profit Organizations in the Delivery of Welfare Services

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Abstract

Although the economic activity in a mixed economy is undertaken by various kinds of organizations, only recently, researchers have been paying attention to the forces influencing the size, composition and financial structure of the private non-profit organizations. With this paper, we want to add new evidence on the way European countries deal with the provision of welfare services, mostly focusing on the role played by the private non-profit sector. We are really interested in the relationship existing between the non-profit and public providers of education, health and social services in Europe. We will perform several empirical tests in order to know whether among the European countries, the non-profit and public sectors are “partners” or “rivals” in the provision of welfare services, and, whether such a relationship holds for the whole 17 European sample countries.

Keywords: *public economics, non-profit sector, welfare services, regression analysis, European Union*

JEL Classification: H41, L31, I0, C31, N34

Introduction

In a mixed economy, economic activity is undertaken by different kinds of organizations: market, government and a third sectors are strongly interdependent among them (Kuvíková, 2004; Ben-Ner and Van Hoomissen, 1992). According

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to the main economics literature the “traditional” explanation why governments exist is to provide public goods and services in order to enhance the economic and social welfare of citizens (Muller, 2006; McNutt, 1996; Brown and Jackson, 1992; Cullis and Jones, 1992; Musgrave, 1959). In current democracies, government is hardly able to provide a Pareto efficient level of public goods and services. Government fails, and so the market (see Stiglitz, 1988; Varian, 1998; Wolf, 1998). As a consequence, a third sector may intervene in the economy and meet the unsatisfied demand left behind as a consequence of failures of both government and market (Matsunaga and Yamauchi, 2002; Salamon, Sokolowski and Anheier, 2000; Marcuello, 1998). Although, nowadays many industries are mixed, little attention has been paid to the forces influencing the size, composition and financial structure of the economic sectors (Brice, 2006; Meričková, 2002; Kuvíková et al., 2001; Weisbrod 1998).

In this paper, we focus on the role played by the non-profit sector across European countries in the provision of welfare services. Otherwise deemed as collective or public goods and services, those welfare services engage the government in securing a just and equitable distribution of resources (McNutt, 1996; Raguseo, 2007). For the purpose of this study, in line with others (Matsunaga and Yamauchi, 2002; Marcuello and Salas, 2001; Salamon and Anheier, 1998; Ben-Ner and Van Hoomissen, 1992; Anheier and Toepler, 1999), we refer to welfare services as the total output of the educational, health and social care industries. We want to add new evidence on the relationship between the non-profit and public providers of welfare services. We are really interested in whether the non-profit and public sectors are “partners” or “rivals” in the provision of welfare services, and, whether such a relationship holds for every European country included in our sample. Data are collected on public and non-profit organizations providing educational, health and social services in 17 European states. Our econometric model employs linear regression techniques to estimate the relationship between non-profit and public sectors. We also pay attention to the financial sources of the non-profit sector (Matsunaga and Yamauchi, 2004; Marcuello and Salas, 2001; Kuvíková, 2004; Šebo, 2002), which we assume as endogenous due to strategic behaviour of the non-profit organizations. We develop two models using two different measures of sector size. To the best of our knowledge, this is the first attempt in the literature that empirically compares public and non-profit welfare sector in Europe in terms of relative expenditure. Additionally, we also test the model, separately and simultaneously, against disaggregated data at each industry level (health care, education and social services).

The paper is organized as follows. Section 1 presents the theoretical framework that will support us during this study. In section 2, we develop the econometric model. Section 3 shows and discusses the results. The last section concludes.

1. The Theoretical Framework

Although it is not easy to settle a model that well describes all the forces influencing the relationship between public and private-non-profit providers of welfare services, we want to start with a classical economic thought (McNutt, 1996; Brown and Jackson, 1992; Cullis and Jones, 1992; Musgrave, 1959; Muller, 2006) observing the situations in which the conditions necessary to achieve the market Pareto-efficiency are not fulfilled (Varian, 1998). From the theory of the perfectly competitive market, we know that the private provision of public good is Pareto inefficient (Stiglitz, 1988). As a result, too little of some public goods and services will be produced and unsatisfied demand will persist. Given the presence of such inefficiency, the theory of state implies that one possible role of government would be to intervene into the market economy and correct its inefficiency (Uramová, 2001). However, beside a market failure there is a government failure too (Wolf, 1998). Government can fail for different reasons; its intervention in the economy is not free of charges and has its own costs relating to administration, lack of adequate control, bureaucracy, rent-seeking behaviour, malfunction and inefficiency (Muller, 2006; Connolly and Munro, 1999; Cullis and Jones, 1992). In such situations, unsatisfied individuals will turn to the assistance of a third sector for obtaining the goods and services that they cannot receive through both the market and the state. Such government failure is most likely to occur where considerable population heterogeneity exists and where the preferences of the population about which public goods to generate through the public sector are dissimilar (Matsunaga and Yamauchi, 2002; Salamon and Anheier, 1998).

In the field of the non-profit sector, the most well-known theoretical perspective has been developed by Weisbrod, who explains the existence of the non-profit organizations from a classical economic theory viewpoint (Weisbrod, 1988). Known as the heterogeneity theory, this framework combines the natural shortcomings of both market and government in providing public goods and services. According to this theory, the non-profit sector intervenes in the economy to meet the unsatisfied demand for public services remaining as a consequence of failures of both the market and the state. The need for non-profit provisions would decline to the extent that the government provides a larger quantity of public services. Government is seen as a rival of the non-profit sector in the production of public goods and services. Therefore, a negative relationship between public (PUB) and non-profit sectors (NPS) would hold in the provision of welfare services whenever the heterogeneity theory is correct. However, the rivalry relationship between the public and private non-profit providers of welfare services is not the sole way to analyse the linkages between them. Salamon and Anheier (1998) have formulated an alternative perspective of analysis, known as the interdependence theory. According to this theory, a close cooperative relationship

can be thought between the non-profit sector and the state in addressing public problems. Indeed, the non-profit organizations are often active in a field before government can be mobilized to respond. They often develop expertise, structures, and experience that governments can draw on their own activities. Beyond that, non-profit organizations often mobilize the political support needed to stimulate government involvement (Salamon and Anheier, 1998). Therefore, a positive relationship between public and non-profit sectors would hold whenever the interdependence theory is correct.

We also want to perform the true test of these theories as Matsunaga and Yamauchi (2004), thus we pay attention to the income sources of the non-profit sector and then we assume the financing hypothesis as endogenously settled. Smith (2007) claims that non-profit organizations receive income from a number of sources. For the purpose of this research, we focus on the three main financial sources: government support (GOV), which includes grants, contracts, subsidies, tax exemption and payments from all levels of government; philanthropy (PHI), which includes private (individual or corporate) voluntary giving; and income generated through their own activity, which includes membership fees or charges for services (OWN). The heterogeneity theory offers interesting assumptions in terms of financial relationship between the public and non-profit sectors. Indeed, because the non-profit sector is seen as a rival of the public sector in the provision of welfare services, there should not be any reason to expect the income of non-profit organizations to be financed through governmental subsidies. The heterogeneity theory predicts that the non-profit sector would be financed mostly through private voluntary giving (Salamon, Sokolowski and Anheier, 2000). Therefore, a negative (positive) relationship between governmental subsidies (philanthropy) and non-profit sector would hold in the field of welfare services whenever the heterogeneity theory is valid. The interdependence theory views the public and non-profit sectors as partners in the provision of the basic welfare services. In order to stimulate the production of public welfare services, government will support the non-profit sector politically and financially. According to this theory, government (GOV) is an important source of financial aid for the non-profit sector. Therefore a positive relationship between governmental subsidies and non-profit sector would hold in the field of welfare services whenever the interdependence theory is valid.

2. The Econometric Model

For testing the theoretical framework specified so far, we employ reduced-form size-determination equations as Ben-Ner and Van Hoomissen (1992). Preliminarily, we measure the size of the non-profit and public sectors using two different indicators.

In the first, the size of the non-profit sector (NPS_JOB) and the size of the public sector (PUB_JOB), for every country i , are both measured in terms of relative employment.

$$\text{NPS_JOB}_i = \text{Size of Non-Profit Sector}_i = \frac{\text{Full-time Equivalent (FTE) Employees}_i}{\text{Active Population}_i}$$

$$\text{PUB_JOB}_i = \text{Size of Public Sector}_i = \frac{\text{Public Employees}_i}{\text{Active Population}_i}$$

Employment data for the non-profit sector – including volunteers – are expressed in full-time equivalent employees (FTE), terms to make them comparable among countries and industries. As in Raguseo and Vlček (2008) employment data – for both the non-profit and public sectors- are expressed as a share of the active population in each country in order to remove any scale effect. This measure is far from being exhaustive because it captures only one aspect of the complex relationship between the public and non-profit providers of public services, which is the workforce. That's why, we use a second indicator, where the size of the non-profit sector (NPS_EXP) and the size of the public sector (PUB_EXP), for every country i , are both measured in terms of relative expenditure generated.

$$\text{NPS_EXP}_i = \text{Size of Non-Profit Sector}_i = \frac{\text{Total Spending}_i}{\text{GDP}_i}$$

$$\text{PUB_EXP}_i = \text{Size of Public Sector}_i = \frac{\text{Total Spending}_i}{\text{GDP}_i}$$

Expenditure data – for both the non-profit and public sectors – are expressed as a share of each country's Gross Domestic Product (GDP) in order to remove any scale effect among small and large countries.

Our econometric model uses a cross-sectional data set for 17 European countries. Its econometric specification relies on the theoretical framework previously specified. A linear regression analysis is used to model the relationships between the non-profit and public sectors in the provision of welfare services and determine the magnitude of the relationships between the two sectors. We decide to apply an ordinary least squares (OLS) technique to our linear regression model since data are continuous and assumed to be normally distributed so that the model is fully parametric (Greene, 1997). Moreover, the OLS estimator is also the appropriate one in case of cross-sectional data if we treat each equation separately (Maddala, 1992). In order to state our model to the case of k explanatory

variables in cross-sectional observations by country i we can write the following equation:

$$y_i = \alpha + \sum_{k=1}^4 \beta_k x_{ki} + \varepsilon_i \quad (1)$$

where

- y_i – the size of non-profit sector in each country i ;
- α – the constant term;
- β_k – the $k \times 1$ vector of regression coefficients;
- X_k – the $k \times 1$ vector of explanatory variables;
- E – the error term;
- $k = 1, 2 \dots 4$ – the explanatory variable identifier;
- $i = 1, 2 \dots 17$ – the country identifier.

According to the common practice in the estimation of econometric models, the equation is in Cobb-Douglas form and all variables are converted in natural logarithms (Johnston and Dinardo, 1997; Greene, 1997). The dependent variable non-profit sector size is inserted in two different models (Model A and B) according to the different measures of size (workforce and expenditure). Explanatory variables include: the size of the public sector, the government subsidies, the private voluntary donations (PHI), and, the income generated through their own activity.

Our sample data includes 17 European countries (Belgium, Austria, Ireland, Netherlands, Spain, Italy, United Kingdom, Germany, Romania, France, Poland, Finland, Czech Republic, Hungary, Norway, Slovakia and Sweden) observed during the period 1993 – 2003. We focus on education, health and social services industries not only because they are services typically provided by the non-profit organizations when they act as public provider but also because these three industries are the most important non-profit fields of activity. The data for the non-profit sector are taken mostly from the comparative non-profit sector project database at the Johns Hopkins University, which was launched in 1991. The data for the public sector are drawn from Eurostat database. The primary data and their sources are listed in the annex.

In addition, model B is also estimated separately and simultaneously for each industry (education, health and social services). We re-estimate the equation (1) using a pooled data set of industries which allows for either fixed or random effects (Greene, 1997). The pooled model is given by:

$$y_{ij} = \alpha_j + \sum_{k=1}^4 \beta_k x_{k,ij} + \varepsilon_{ij} \quad (2)$$

where

- y_{ij} – the size of non-profit sector in each country i for each industry j ;
- α_j – the constant term;
- β_k – the $k \times 1$ vector of regression coefficients;
- X_k – the $k \times 1$ vector of explanatory variables;
- ε – the error term;
- $k = 1, 2, \dots, 4$ – the explanatory variable identifier;
- $i = 1, 2, \dots, 17$ – the country identifier;
- $j = 1, 2, \dots, 3$ – the industry identifier.

Indeed, the idea of a pooled data set of education, health and social services industries increasing the sample size to $i \times j$ observations per sector can then be used to pick up any industry specific effect among countries (Johnston and Dinardo, 1997). In our model, we will control for the industry specific effects by applying a dynamic fixed-effect estimator, which assumes heterogeneity in the short-run and homogeneity in the long-run equilibrium relationships. Consequently, each pool will have an unrestricted intercept. In other words, when a dynamic fixed effect estimator is applied a constant is automatically added to the common coefficients of the specification, if necessary, to ensure that the effects sum to zero.

3. Empirical Results

Our research findings on the European welfare industries present an overview of the major characteristics of the non-profit and public sectors among European countries (see Annex).

Table 1
Descriptive Statistics of Selected Variables

Descriptive Statistics				
	Minimum	Maximum	Mean	Std. Deviation
NPS	0.18	9.46	2.6684	2.64650
PUB	20.16	38.27	28.4201	5.42976
OWN	9.00	52.29	25.2418	11.95078
GOV	21.83	69.61	44.7018	13.64029
PHI	12.09	64.13	30.1694	11.44202

Source: Owns' calculations by SPSS 13.0. See Annex for complete cross data set.

According to the descriptive statistics for the variables used in our econometric model, showed in Table 1, the private non-profit welfare sector turns out to be an important economic actor. For the sample countries, the aggregate expenditure of the non-profit welfare sector accounts, on average, for 2.6 per cent of

GDP. For the public welfare sector, the average expenditure among European countries accounts for 28.4 per cent of GDP. However, important differences exist in the size of the welfare sector among countries. Clearly, it appears that the relative size of the non-profit welfare sector varies significantly among EU countries. From 9.46 per cent in Netherlands to 0.18 per cent in Romania, in terms of expenditure and from 8.06 per cent in Netherlands to 0.45 per cent in Romania, in terms of employment. Although less remarkable, differences also exist in the relative size of the public welfare sector (see Annex). At a first look, we can see that the welfare industries are generally larger in the European Monetary Union (EMU) states than in the European Union (EU) countries. Not only do countries vary considerably in the size of their public and non-profit sectors but they also vary in the extent to which these sectors are financially dependent. In order to better explain this concept it is useful to move toward a more pragmatic analysis of the relative determinants of the welfare sector in Europe. Table 2, shows a summary of the main results derived from the estimation regression models specified in the previous section. These results refer at the overall welfare sector as composed by education, health and social services industries. The first two columns of Table 2 show the estimates for the model A, when the sector size is measured in terms of employment. In the last two columns are shown the estimates for the model B, when the sector size is measured in terms of expenditure. We apply simple and multiple regression techniques, in the latter case including also the financial sources of income as control variables. From a statistical point of view, testing the financing hypothesis corresponds to the testing of conventional simultaneity among financial sources (Matsunaga and Yamauchi, 2004).

On average, our models explain about half of the total variance in the size of the non-profit sector. Turning our attention to the estimated parameters, we observe a general relationship between public and non-profit providers of welfare services among European countries that appears to be basically positive. Over the four specifications, three report a positive sign that is 0.889 and 1.579 when we measure the sector's size in terms of expenditure, and, -0.328 and 1.162 when we consider the labour force, respectively. Nevertheless, only the latter coefficient is statistically significant at 5 per cent level. The coefficient on the philanthropy variable shows a positive sign in both models and it is statistically important at 5 per cent significance level in the model A. The coefficient on own income is not statistically significant. Noteworthy is the sign of the coefficient on the government subsidies variable, which turns out to be positive and statistically significant in both models.

Figure 1 depicts the relationship between the overall size of the non-profit and the public welfare sector as specified by our two simple models.

Table 2
The Welfare Sector Overall Estimations

Regressors	Model A		Model B	
	NPS_JOB	NPS_JOB	NPS_EXP	NPS_EXP
α	-3.670** (0.040)	-25.506*** (0.006)	-4.786 (0.338)	-18.330 (0.106)
PUB	1.162** (0.015)	-0.328 (0.543)	1.579 (0.293)	0.889 (0.488)
OWN		0.844 (0.146)		0.143 (0.870)
GOV		4.722*** (0.004)		3.205* (0.066)
PHI		2.158** (0.013)		1.005 (0.405)
R ²	0.336	0.745	0.073	0.592
F-sig	0.015	0.002	0.293	0.021

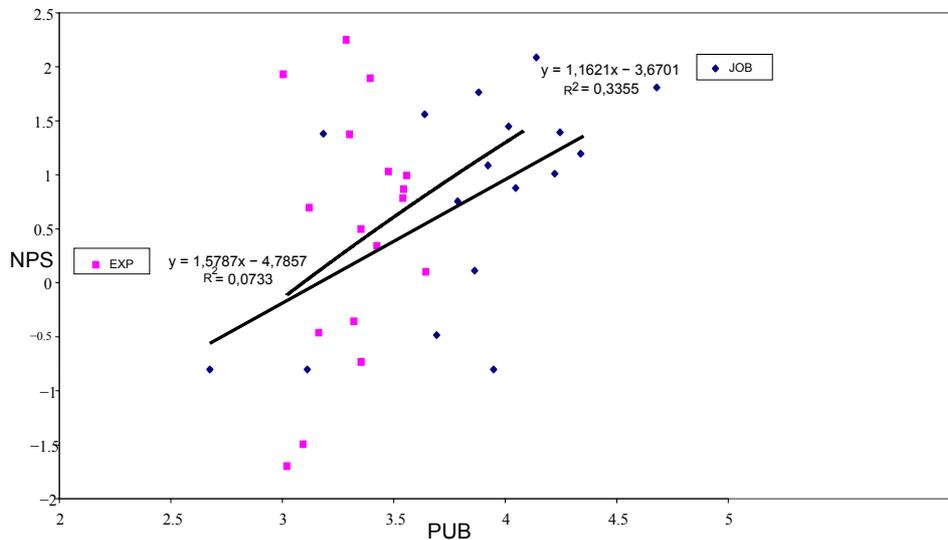
Dependent variable: NPS.

In parentheses *t* significance.

* 10 per cent significant, ** 5 per cent significant, *** 1 per cent significant.

Source: Owns' calculations by SPSS 13.0.

Figure 1
The Relationships between the Overall Size of the Non-profit and the Public Welfare Sectors



Source: Owns' elaborations by Excel 2007.

As we can see, it is quite hard to detect any clear signal in supporting the prevalence of a specific theory over another and the existence of a common model of welfare service provision among the European countries included in

our sample. On the one hand, positive coefficients on public sector size and government subsidies suggest, as predicted by the interdependence theory, a cooperative behaviour between public and non-profit sector in providing welfare services. On the other hand, positive coefficients on philanthropy and own income confirm the financial dependence of the non-profit sector from private voluntary donations and the rivalry behaviour between the public and non-profit providers of welfare services in Europe, as predicted by the heterogeneity theory. Moreover, not all estimations are statistically significant. In fact, the nature of our data suggests that within each sector, estimates across industries might differ due to unobserved variability in the dependent variable (Ben-Ner and Van Hoomissen, 1992). When we repeat the test against data at a more disaggregated level, for detecting any industry-specific pattern in the provision of welfare services within our sample countries, the previous finding still holds for each single industry of welfare services. Table 3 reports the coefficient estimates for the model B when it is performed separately at each industry level (education, health and social services).

Table 3
The Industries Estimations

Regressors	Education		Health		Social Services	
	NPS	NPS	NPS	NPS	NPS	NPS
α	-2.334 (0.392)	-9.062 (0.274)	-4.437 (0.256)	-20.802 (0.185)	-6.418** (0.027)	-29.837** (0.015)
PUB	1.123 (0.491)	2.174 (0.174)	1.897 (0.387)	-1.144 (0.702)	1.991** (0.049)	1.420 (0.110)
OWN		-0.104 (0.836)		0.190 (0.809)		0.918 (0.302)
GOV		1.443 (0.215)		4.277* (0.065)		3.923** (0.032)
PHI		-0.014 (0.983)		1.472 (0.456)		2.259 (0.125)
R²	0.032	0.412	0.050	0.509	0.234	0.646
F-sig	0.491	0.143	0.387	0.057	0.049	0.010

Dependent variable: NPS.

In parentheses *t* significance.

* 10 per cent significant, ** 5 per cent significant, *** 1 per cent significant.

Source: Owns' calculations by SPSS 13.0 and E-Views 5.0.

The sign of the regression coefficients on the public sector size, government subsidies, philanthropy and own income are still mostly positive and not statistically significant for several specifications. Since the small number of observations can influence the goodness of fit of the model, in equation (2) we estimate a pooled data set of the three welfare industries, which allows increasing the

number of observations to $i \times j$ per sector. Such a technique although employs data at industry level, comes up with results relevant at sector level. Finally, we apply a dynamic fixed effect estimator to our pooled model in order to pick up the industry specific effects. Table 4 presents the results of the pooled model, with and without fixed effect estimations.

Table 4
The Pooled Estimations

<i>Regressors</i>	Pooled Model without Fixed Effects		Pooled Model with Fixed Effects	
α	-1.197*	-9.106*	-4.448**	-11.653**
	(0.094)	(0.073)	(0.015)	(0.014)
PUB	0.192	0.367	1.758**	1.684**
	(0.559)	(0.233)	(0.042)	(0.020)
OWN		-0.060		-0.158
		(0.850)		(0.584)
GOV		1.953**		1.957***
		(0.014)		(0.008)
PHI		0.134		0.164
		(0.804)		(0.741)
EDU_α			1.062	1.099
HEA_α			0.254	-0.020
SOC_α			-1.316	-1.079
R²	0.007	0.333	0.120	0.474
F-sig	0.559	0.001	0.106	0.000

Dependent variable: NPS.

In parentheses *t* significance

* 10 per cent significant, ** 5 per cent significant, *** 1 per cent significant.

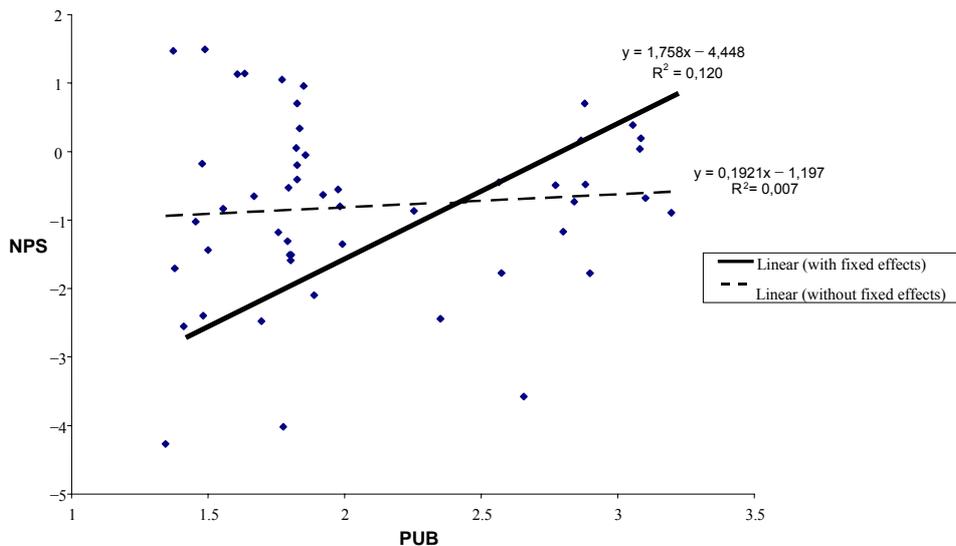
Source: Owns' calculations by E-View 5.0.

Due to the highest level of variability explained by the R^2 we consider the pooled model with fixed effects as the most reliable estimator for our data. The coefficient on public sector size shows a positive sign in all specifications and is statistically significant at 5 per cent level when we control for fixed industry effects. The coefficient on government subsidies as well is positive and statistically significant in both models. Although, without statistical significance, but worthy of further examination (see: Matsunaga and Yamauchi, 2004; Salamon et al., 2003; Smith, 2007; Marcuello 2001), the coefficient on private donations steadily shows a positive sign in all specifications. Figure 2 depicts the strength of the relationship between the non-profit and public welfare sectors when a pooled technique is applied to the sample European countries. It is clear from the slope of the two lines that unobservable variability across industries is an important factor influencing the significance of the relationship between the non-profit and public sectors. The non-profit sector's size strongly depends on internal

industry characteristics (Nemec, 2008), and countries with the same production structure tend to have the same relative size of the non-profit welfare sector, controlling for the pass-through effect of the income sources.

Figure 2

The Pooled Model for the Non-profit and the Public Welfare Sectors' Relations, with and without Fixed Effect



Source: Owns' elaborations by E-View 5.0.

The empirical analysis shows that much of the regression estimates have low explanatory power or significance level. This can be due either to the relatively small number of observations which do not allow to explain an important share of the variability in the dependent variable or to the dissimilarity existing in the way European countries rely on the public and non-profit sectors for the provision of welfare services. The main evidence here provided is the absence of a common European model of welfare service provision among the sample countries. Almost certainly, as Raguseo and Vlček (2008) argue, different models or patterns of relationship between the non-profit and public welfare sectors can be detected in Europe.

We also conclude that the interdependence theory and its cooperative assumption is quite a solid theoretical framework for explaining the relationships between the non-profit and public providers of welfare services in Europe. At the same time, we do not completely deny the robustness of the heterogeneity theory, which predicts a rival behavior between the non-profit and public welfare sectors. When applied to our sample countries, the heterogeneity theory and the

interdependence theory do not exclude each other. Rather, for the European states, there is a significant complementarity between the economic non-profit sector's theories and the way countries deal with the provision of public welfare services.

Conclusion

This paper shed new light on the existence of a common European model of welfare services provision based on the dual relations between public and private non-profit sectors. For the purpose of this study, we considered the welfare services as the total output of the educational, health and social care industries. Our econometric model relied on two opposite theories attempting to explain the relationship between the non-profit and public sectors. We employed linear regression techniques to estimate whether these two sectors are "partners" or "rivals" in the provision of welfare services, and, whether such a relation holds for every European state included into the sample. In our model, we collected cross-sectional data on public and non-profit organizations providing educational, health and social services in 17 European countries observed in the period 1993 – 2003.

From our research findings, it appeared that the relative size of the non-profit and public welfare sectors varies significantly among countries. Not only do countries vary considerably in the size of their public and non-profit sectors but also they vary in the extent to which these sectors are financially related. Our analysis also showed fundamentally positive signs of the coefficients on public sector and government subsidies. This result is consistent with other studies on this topic. Salamon et al. (1998 and 2000) theorized that a close cooperative relationship can be forged between the non-profit sector and the government in addressing public problems. Matsunaga and Yamauchi (2004) found that governments subsidies promote the growth of the non-profit sector. Moreover, we found positive signs of the coefficients on philanthropy. This confirms the financial dependence of the non-profit sector from private individual whose demand for public goods and services has been satisfied by neither the market nor the state (Smith, 2007; Brice, 2006). Our findings showed that next to the important elements of potential cooperation and partnership between the public and non-profit providers of welfare services in Europe, there are also potential sources of competition between the two sectors. Indeed, it seems quite hard to support the robustness of a specific theory over another. The main evidence provided by this analysis does not fully support the existence of a common model of welfare services provision among European countries. We conclude that for the European countries included in our sample there exist significant complementarity between

these two theories, and, in the way how they deal with the provision of welfare services. No a common model, but perhaps the existence of different models (or patterns) of relationship between the public and non-profit welfare sectors can be observed among European countries' subgroups (clusters).

Of course this analysis is not deprived of the possibility of measurement and specification errors. These can be due to the relatively small number of observations, manipulation of primary data, operationalization of theoretical concepts and unobserved variability in the dependent variable. Even so, our wish is that this study will provide a helpful support and motivation toward a more precise test of the existing economic theories of the non-profit sector using different and more sophisticated comparative approaches. As possible extension of this study, it would be very desirable to apply a cluster analysis technique for preliminarily detecting similarity and dissimilarity in the way European countries deal with the provision of welfare services. This would help to better identify the existence of potential relationships between the public and non-profit welfare sectors, and, in turn, to come closer to comprehend what the true determinants of the sector size really are. Due to the increasing importance of this topic among both economists and politicians, this would represent a really valuable result in order to assist and advise the policy-makers to develop and/or improve a common European welfare policy.

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Annex: Primary Data

Table A1
Workforce of the Non-profit Welfare Sector, 1993 – 2003

Country	Education*	Health*	Social Services*	Total Welfare Sector*	Education^	Health^	Social Services^	Total Welfare Sector^
AU	42.389	25.8	35.02	103.21	1.127	0.686	0.931	2.744
BE	105.09	63.97	86.81	255.86	2.507	1.526	2.071	6.104
CZ	26.473	16.11	21.87	64.456	0.46	0.28	0.38	1.12
FI	31.648	19.26	26.14	77.056	1.219	0.742	1.007	2.968
FR	455.75	277.4	376.5	1 109.6	1.748	1.064	1.444	4.256
GE	556.35	338.6	459.6	1 354.6	1.357	0.826	1.121	3.304
HU	12.604	7.672	10.41	30.688	0.253	0.154	0.209	0.616
IR	34.569	21.04	28.56	84.168	2.392	1.456	1.976	5.824
IT	218.52	133	180.5	532.06	0.874	0.532	0.722	2.128
NL	241.91	147.3	199.8	589.01	3.312	2.016	2.736	8.064
NO	37.49	22.82	30.97	91.28	1.656	1.008	1.368	4.032
PL	35.558	21.64	29.37	86.576	0.184	0.112	0.152	0.448
RO	19.297	11.75	15.94	46.984	0.184	0.112	0.152	0.448
SK	5.29	3.22	4.37	12.88	0.184	0.112	0.152	0.448
SP	167.62	102	138.5	408.13	0.989	0.602	0.817	2.408
SW	78.867	48.01	65.15	192.02	1.633	0.994	1.349	3.976
UK	583.28	355	481.8	1 420.2	1.955	1.19	1.615	4.76

* In thousands.

^ As share of the active population.

Source: Adapted from Johns Hopkins comparative non-profit sector project.

Table A2
Expenditure Generated by the Non-profit Welfare Sector, 1993 – 2003

Country	Education*	Health*	Social Services*	Total Welfare Sector*
AU	0.27	0.45	1.47	2.19
BE	2.856	2.604	1.176	6.636
CZ	0.238	0.221	0.17	0.629
FI	0.819	1.053	0.507	2.379
FR	0.95	0.532	1.216	2.698
GE	0.36	1.4	1.04	2.8
HU	0.308	0.084	0.308	0.7
IR	4.452	2.016	0.42	6.888
IT	0.434	0.589	0.62	1.643
NL	3.1	4.34	2.015	9.455
NO	0.666	0.259	0.481	1.406
PL	0.221	0.091	0.169	0.481
RO	0.078	0.018	0.087	0.183
SK	0.182	0.014	0.028	0.224
SP	0.84	0.52	0.64	2.1
SW	0.574	0.123	0.41	1.107
UK	3.128	0.204	0.612	3.944

* As share of the GDP.

Source: Adapted from Johns Hopkins comparative non-profit sector project.

Table A 3
Non-profit Sector Financial Sources, 1993 – 2003

Country	OWN Income*	Government Subsidies*	Philanthropy*
AU	26.43	53.14	20.45
BE	12.15	69.61	18.09
CZ	27.95	41.15	30.86
FI	29.44	35.70	34.67
FR	14.43	44.31	41.43
GE	17.09	55.66	27.17
HU	35.17	31.68	33.78
IR	9.00	63.17	27.94
IT	36.39	41.22	22.43
NL	11.09	67.23	21.61
NO	23.83	44.38	32.33
PL	52.29	21.83	26.10
RO	11.38	24.72	64.13
SK	39.56	48.09	12.09
SP	32.88	37.15	30.17
SW	21.28	43.08	35.83
UK	28.75	37.81	33.80

* As share of the total income.

Source: Adapted from Johns Hopkins comparative non-profit sector project.

Table A 4
Workforce and Expenditure in the Public Welfare Sector, 1993 – 2003

Country	Workforce of the Public Welfare Sector*	Workforce of the Public Welfare Sector^	Public Expenditure on Welfare Sector ⁺	Public Expenditure on Education ⁺	Public Expenditure on Health ⁺	Public Expenditure on Social Services ⁺
AU	2 562.7	68.13	34.49	6.01	7.26	21.22
CZ	2 739.7	47.60	23.65	4.48	6.04	13.12
FI	1 311.7	50.52	34.63	6.20	6.19	22.23
FR	1 444.0	55.38	38.27	7.42	7.82	22.86
GE	3 138.9	76.56	32.32	4.28	6.26	21.78
HU	1 997.2	40.09	27.71	5.81	5.45	16.45
IR	700.3	48.45	20.16	4.43	6.21	9.52
IT	1 102.1	44.08	28.59	4.73	6.02	17.83
NL	4 580.7	62.71	26.74	4.99	3.94	17.81
NO	1 579.1	69.75	30.67	6.20	7.32	17.13
PL	2 802.1	14.49	28.62	6.07	4.42	18.15
RO	2 355.4	22.45	20.51	4.11	5.91	10.50
SK	1 489.2	51.79	22.03	3.96	3.83	14.23
SP	9 695.6	57.20	22.67	4.38	5.30	12.98
SW	1 167.1	24.16	38.27	7.22	6.61	24.44
UK	1 134.5	38.02	27.17	5.12	6.06	15.98

* In thousands.

^ As share of the active population.

+ As share of the GDP.

Source: Eurostat, Statistical Yearbook 2005.