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Redistributive Outcome of Sickness Insurance - An Empirical Study of Social Insurance Institutions

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- An empirical study of social insurance institutions

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Abstract.

Aims: We analyzed the redistributive outcomes for sickness benefits using a typology of social insurance institutions compared to external factors for sickness risk. **Material:** Unbalanced panel data of the Luxembourg Income Study on household earnings, sickness benefits and labour force demography (OECD data) and educational attainment were employed. **Method:** Gini-coefficients were used for measuring earnings inequality. Relative changes in earnings inequality for sickness benefits were explained by social insurance institutional dummies using multiple regression analyses. Demography and education were included in an extended model. **Results:** The typology explained the redistributive outcomes as expected. When adding external variables, the observed pattern of the typology could not be repeated. **Conclusions:** Our results indicate that the demographic structure and educational attainment have a stronger influence on the redistributive outcome of sickness benefits than the established social insurance typology.

Key words: earnings**,** inequality, sickness benefits, social security, typology.
JEL Classifications:

1. Introduction

Research in redistribution concerns both mechanisms and outcome. Studies on redistributive mechanisms mostly consider typologies, regulations and external factors as macroeconomics and demography. Some typologies focus on political and ideological, but not on system differences (Esping-Andersen, 1990; Castles, and Mitchell, 1992). A reduction in income inequality due to taxes and transfers is found to be significantly related to political configurations Bradley (2001). Changes in regulations leading to higher individual costs of being on sick- leave, reduce sickness insurance consumption (Johansson and Palme, 1996). Income inequality through governmental interventions is found to be influenced by economic recessions (Gustafsson and Palmer, 2002). Increased unemployment reduces sickness absence and spendings (Leigh, 1986; Askildsen, Bratberg and Nilsen, 2002; Khan, Gerdtham and Jansson, 2004). When comparing wage without and with sickness compensation respectively, earnings inequality is reduced, but with differences between age, gender and socioeconomic groups (Selén and Ståhlberg, 2001).

In welfare states, social insurance systems provide economic support during sickness. However, the countries have different social insurance policies and regulations (ISSA, 2004). For a better understanding of similarities and variations among countries, a typology of social insurance institutions based on sickness insurance and old age pension regulations has been developed (Korpi and Palme, 1998). It is argued that these two social insurance schemes respond to basic features of the human condition – the certainty of aging and the risk of illness. Both of these are also important to all population unlike unemployment or occupational injury insurance. The impact of these schemes on individual and household economy gives the incentives to build interest groups among population. The typology is

divided on five categories: encompassing, basic security, corporatist, voluntary state subsidized and targeted systems. However, no attempt has been initiated to estimate the statistical significance of the typology for redistributive outcomes.

Additionally, the variations in sickness risk due to established risk factors as working condition, family structure, lifestyle, demography and education may obscure the redistributive outcomes of social insurance system (Alexanderson and Norlund, 2004). Therefore, it would be of interest to study the typology as such and along with other important risk factors (labour force demography and educational attainment), which indirectly influence the risk of sickness. Our paper intends to analyze if the five categories are significantly different in their redistributive outcomes. We also are interested to analyze if the observed redistributive outcomes remains unchanged when adding established risk factors as labour force demography and educational attainment.

2. Typology of social security systems

Understanding of the social security typology, developed by Korpi and Palme (1998) is vital for the current paper. Sickness insurance and old age pension regulations are used to classify the countries into five social insurance categories (Table 1).

Table 1 to be inserted here

Eligibility in the encompassing model (Sweden, Finland) is based on contributions and citizenship. The programmes cover all citizens. Basic security is combined with earnings-related compensations for the people at work and intends to assure a specific level of living standard. Eligibility in the basic security model (Denmark, UK, Ireland) is based on

contribution or citizenship (residence). Flat-rate compensations or low ceiling on earnings replacement are ideal in this model. In the corporatist model (Austria, France, Belgium), programmes are directed to people at work. Eligibility for compensations is based on a combination of contributions and on belonging to a specified occupational category. Compensations are clearly earnings-related, but entitles and rules can differ significantly among the programmes for different occupational categories. The voluntary state-subsidized model helps the mutual-compensations societies and other voluntary organizations using tax money. As eligibility for compensation is based on voluntary contributions that give membership in the respective schemes, these have been important for skilled workers and the middle class instead of unskilled workers and low income earners. In the targeted model (Australia) eligibility is based on a means test, which results in minimum or relatively similar compensations to those who fall below a poverty line or are in need of support.

In our study, we rely on the placement of countries to each category by Kangas (2004), who used only the sickness insurance regulations. When most of the countries belong to a specific category throughout the study periods (1981-2000), two countries have changed their system from encompassing to basic security system (Denmark in 1990 and Finland in 1994).

4. Hypotheses

Our hypotheses concern two types of variables that may reasonably have influence on the redistributive outcomes of sickness benefits. First, the social insurance institutions are expected to redistribute differently. Encompassing system includes all citizens in the same programmes. Assuring basic security to everybody and earnings-related benefits to economically active people this system brings low income and better-off groups in the same platform. This system consequently provides insurance coverage to a large portion of the population. Encompassing system therefore is expected to have the highest redistributive

outcomes. The basic security system with flat rate benefits provides a safety net for working class, leaving the middle class on private insurance. The expected redistribution can therefore be lower than the encompassing system. The corporatist system supports occupational groups with earnings-related benefits. There is scope for both working class and middle class to be included in it. As the inclusion of low and middle income groups are not guaranteed by the political system, the redistributive outcome is not fully predictable. However, this system should redistribute more than the basic security system, but less than the encompassing system. The targeting system provides support only to the low-income earners. It is thus expected that the redistributive outcome will be lowest. In brief, the redistributive outcome of the encompassing system should be highest, followed by corporatist, basic security and targeting system.

Our second type of hypotheses concern the sickness risk in the countries. For a given social insurance system, the redistributive outcomes can be different in relation to variations in sickness risk between countries. It can be hypothesized that a country with a higher risk level redistributes more. Cross-nationally comparable sickness data is not available. In that case, we employ labour force demography and the educational level of the working age people as the proxy variables for sickness risk. Higher proportion of female in labour force may accumulate higher risk as women are more frequently on sickness. The higher labour force participation rate in people at age 55-64 years old may be connected to a higher risk, which could lead to a higher redistribution. Educational attainment of the working age people in the country may reduce sickness risk and consequently the redistributive outcomes. We finally hypothesize that the redistributive outcomes can not only be influenced by social insurance institutions, but also the demographic structure and educational attainment.

4. Methods

4.1 Earnings redistribution through sickness benefits

Gini-coefficients of earnings without and with sickness compensations are used for estimating the redistributive effects of sickness compensations on earnings. *Gini-coefficient ranges between 0 and 1 and shows higher inequality with higher values.* The relative changes in Gini-coefficients are calculated using the following formulae.

$$\text{Relative changes in Gini-coefficient} = 1 - \left({}^{GE}\!/_{GES} \right) * 100$$

Where, GE = Gini coefficient of earnings excluding sickness compensations and GES = Gini coefficient of earnings including sickness benefits. Redistributive effects of social insurance have been estimated by using this formula in other studies (Mahler & Jesuit, 2004; Ferrarini & Nelson, 2002).

4. 2 Econometric issues

4.2.1 Data

The LIS database contains cross-national data from 25 countries, mainly the OECD countries (LIS, 2005). The data providers are mostly the prime respondents from each registry holder in each country, e.g. the Australian Bureau of Statistics. The LIS group adjusts the data for international comparisons (Lissification). The LIS database includes data on earning and sickness compensations on household level. The earnings and compensations data have been weighted by an equivalence scale, i.e., takes into account the number of members in the households, when calculating earnings inequality. Households with the heads at age 25-59 are included in calculation. Data on earnings is constituted by adding three variables: gross wages and salaries, farm self-employment income and non-farm self-employment income. Sickness benefit includes cash compensations that are paid for compensating the loss of earnings

during sickness absence. The maternal compensations are generally included into the sickness benefits. In some countries, sickness benefit includes occupational injury payments. In earning usually gross income from both employment and self-employment are included. The LIS databases are presented in detail on Luxembourg Income Study Project website (www.lisproject.org).

The selection of countries is based on the principle of most comparable cases (Lijphart, 1975). The countries that have a history of uninterrupted political democracy during the post world war II period and with more than one million inhabitants are included in our study. Our number of countries is then restricted by the availability of data on both the dependent and independent variables.

4.2.2 Variables

Relative changes in earnings inequality due to sickness compensations are used as the dependent variable in the analysis. The independent variables are dummies for social insurance systems, average years of schooling in working age people, proportion of female in the total labour force and labour force participation rate in people at age 55-64 years.

Average years of schooling range between 9.1 and 12.7 years. Ireland has the lowest educational attainment in 1987. It increased to 10.1 in 1996. The highest education attainment is observed in Belgium in 1988. Educational attainment increased over the years in all countries. Data on the average years of schooling is collected from Bassanini and Scarpetta (2001).

The proportion of female in the labour force ranges between 30.6% (Ireland in year 1987) and 48.1% (Finland in year 2000). Ireland experienced 33.4% female in the labour force in 1996. The variation in female labour force is large between countries. Participation of female in labour force generally increased over years in all countries. In Australia it increased from

37.3% to 42.3% between 1981 and 1994. Data is obtained from World Development Indicators, 2002 (United Nations, 2002).

Table 2 to be inserted here

Labour force participation rate at age 55-64 years varied strongly between countries. The lowest rate is observed in Belgium (22.8%) in 1988 and the highest is in Switzerland (72.5%) in 1992. In the UK, the rate first increased and then decreased and then increased again during 1986-1999. The variations are not large within countries over years. But we observe large variations between countries within the social insurance systems. For example, Both Finland and Sweden had an encompassing system in 1987. The labour force participation rates were 42.7% and 69.1%.

Data on labour force participation is employed from OECD source (2001).

Table 3 to be inserted here

The correlation matrix shows that education, labour force participation rate in people at age 55-64 years, encompassing system and targeting system are significantly correlated with the redistributive effects. While the first one is negatively, the others are positively correlated. There are correlations between independent variables as well. Education is positively correlated with female in labour force, voluntary state subsidized and encompassing systems. Female in labour force is positively correlated with encompassing system. Labour force participation rate in people at age 55-64 years is positively correlated with encompassing and negatively correlated with corporatist system. Basic security system is negatively correlated with targeting system.

4.2.3 Estimation

Our first regression model estimates the redistributive effects of social insurance categories using unbalanced panel data. The first model is as follows:

$$\gamma = c + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon \ldots \ldots \ldots \text{(I)}$$

Where, γ = relative change in Gini-coefficients, and c is the constant term. x_1, x_2 and x_3 denote dummy variables for corporatist, basic security and targeting systems (The model thus consider encompassing system as the reference system) estimates how these systems redistribute earnings compared to encompassing system. ε denotes the error term. The betas are the coefficients of the adjacent dummy variables. We used unbalanced panel data, which means an unbalanced number of observations for several years for each country.

In the second model, we include demographic variables (female in the total labour force, labour force participation rate in people at age 55-64 years) and average years of schooling in working age people in order to observe the influence of these variables on the relationship between social security systems and their redistributive capacity.

$$\gamma = c + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \varepsilon \ldots \ldots \text{(II)}$$

Here x_4, x_5 and x_6 indicate the average years of schooling in working age people, female in the total labour force and labour force participation rate at age 55-64 years respectively.

The dependent variable i.e., relative changes in earnings inequality due to sickness insurance is not normally distributed. We even found that Austria contains negative observation, i.e., an increase in inequality unlike any other country. In order to normalize the distribution, we transformed the dependent variable into its logged values after adding 1 with

the relative changes in inequality in earnings. It provides us with an approximate normal distribution.

Unbalanced panel data

We employed an unbalanced panel data set i.e., at least one unit has missing observation for some year. Our interest is to analyze the typology and we, therefore, used social insurance systems as the unit of analysis. We have data for eleven countries which are placed into five social insurance categories. Switzerland is placed in the voluntary state subsidized system alone. It is not, therefore, possible to include this category into analysis as dummy variable regression demands at least two observations. A traditional view of the fixed effects model is to assume that the unobserved effect is a parameter to be estimated for each unit (social insurance system). Wooldridge (2003) recommends the way to estimate an intercept for each unit is to put in a dummy variable for each unit and probably dummy variable for each year. The dummy variable regression analysis is impractical if the number of units even when not large as it produces a high number of explanatory variables. In our case, the number of units is four, which does not produce many explanatory variables and gives us the opportunity to run the analysis. We ultimately obtain the fixed effect model with this approach. The difficult issue with the unbalanced panel data is determining why the panel is unbalanced (Wooldridge, 2003). The problem with missing years is acute if the missing data is correlated with idiosyncratic or time varying errors, which represents the changes over time. Kangas (2004) studied the sickness insurance regulations till mid 1990s. If any change took place since then, has not been critically studied. We therefore, test the model by dividing the dataset before and after 1990 for increasing the validity of the results.

A common limitation with panel data is that the assumption of independence of errors across observations is unlikely to be satisfied. The ordinary least square model can contribute

to incorrect standard errors for regression coefficients. There are several procedures to handle the correlated errors for panel data. Estimation of an autoregressive process could be one solution. Since we have years repeated within the social security systems, the data did not allow for such estimation.

A drawback with cross-national or cross-system analysis is that there may be unobserved factors that can have an impact on the redistributive effects, which are not captured by the selected explanatory variables. We have a small number of total observations and number of observations per country is low as well. As we aim at analyzing the social insurance systems using cross-national data, we put dummy variables for each system, which is supposed to control for the unobserved heterogeneity across the social security systems. We included year specific dummies for controlling the year variations. We tested the second model i.e., social insurance dummies, demography and education with Ramsey RESET for misspecification.

Multicollinearity among the explanatory variables can be another problem with multiple regression analysis. We observed a correlation among the explanatory variables in the descriptive statistics. For testing the multicollinearity, we employed variations inflationary factors after estimating the regression models.

5. Results

Our estimated first model (equation I), shows that all the social security systems compared to the encompassing system redistribute significantly less at 1% risk level. The coefficients of the systems show that the targeting system (-1.206) is the least redistributive one followed by, corporatist (-0.953) and basic security (-0.808) systems.

Table 4 to be inserted here

We excluded one country at a time and found no significant change of the redistributive outcome. Sweden is an important member of the reference category (encompassing system). Exclusion of Sweden is thus irrelevant. We tested the model by employing absolute changes in Gini-coefficients instead of relative changes and found similar results. We even tested the model (model IB) including year-specific dummy variables. All three systems redistribute still less than the encompassing system. The targeting system is the least redistributive (-1.074), followed by the basic security system (-0.639) and the corporatist system (-0.580) unlike model I.

In the second model where we included demographic structure and educational attainment in addition to social insurance dummies, we found that only the basic security system (-0.561) redistribute significantly less than the encompassing system. Both educational attainment and labour force participation rate significantly explain the redistributive outcome. It implies that higher educational attainment reduces redistribution. A higher labour force participation in people at age 55-64 years increases the redistributive outcome. When excluding one country stepwise, the results became unstable. For example, the targeting system appears as significant and the effects of education or demography become insignificant. However, the expected redistributive outcomes of the typology do not appear in this model. When including year dummies in the model (model IIB) no significant change was observed compared to model IIA.

We tested for multicollinearity by using variations inflationary factors (VIF). Only model IIB shows a VIF with maximum 13.89 though the average is 4.61. Observing a non significant result in Ramsey RESET test, we find that no relevant variable is omitted in the model. In model IIB, we included even year dummies. The model shows that education and labour force participation rate in people at age 55-64 years explain the redistributive outcomes

significantly, but the pattern of the typology distorted.

6. Discussion and remarks

Compared to other studies on income redistribution in welfare states, we focused on one social security scheme i.e., sickness insurance. This scheme has been used for developing a typology for social insurance institutions (Korpi and Palme, 1998). We expected that the outcome of our study should be closed to the established typology. However, we could only verify the hypotheses when analyzing the typology itself. When we included labour force demography and educational attainment the explanatory value of the typology disappeared.

Compared to similar research, our results are demonstrating comparable redistributive outcomes (Bradley et al. 2001; Ferrarini and Nelson, 2002; Beer et al. 2001; Mahler and Jesuit, 2004). For example, Sweden appears to be the most redistributive country, while Switzerland is low in ranking. Thereby, the typology seems to be supportive. We notice that the typology is unstable when adding proxy variables that reflect sickness risk. However, we cannot fully confirm that the typology empirically does not explain the redistributive outcomes for several reasons. First, one should be cautious when using a small number of observations in a cross-national study. However, in cross-national studies on income inequality a small number of observations are not uncommon (Bradley et al. 2001). Second, it was not possible to control for reporting and data processing errors in the Luxembourg income study archive and the OECD database.

Stephens (1976) studied the redistributive outcomes and found that the labour market institutions, not politics were the determinant of final distributive outcomes. External factors like, unemployment rather than the constitutional structure appear as a stronger determinant of inequality reduction through taxes and transfers (Bradley et al. 2001). Our results indicate that

the demographic structure and education overwhelm the social insurance typology when considering the redistributive outcome of sickness benefits.

The result of this study can be affected to some extent by the variations in sickness benefit concept between countries and between years within countries. First, a part of the sickness benefits which is paid by the employers in the beginning of sick spells is not included in sickness benefits and can be instead included in income. The magnitude of such portion of sickness benefits is very low which may not have much effect on our final redistributive outcomes. Second, maternity benefit is included into sickness benefits in some years and countries, while not in others. It is not possible with available dataset to what extent the redistributive outcomes could be influenced by exclusion or inclusion of maternity benefits into sickness benefit concept. The principle of payments due to sickness and maternity leave are generally similar. The consequence of similar payment principles may not vary largely.

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Table 1. Social security typology developed by Korpi and Palme (1998) and kangas (2004).

Social insurance categories	Bases of entitlement	Benefit level principle	Main source of financing	Administration	Arena of actions
Encompassing	Citizenship + labour force participation	Flat rate + earnings-related	Taxes and contribution	Public	Politics
Corporatist	Occupational category and labour force participation	Earnings-related	Contributions	Bi-/tripartite	Labour market/ politics
Basic security	Citizenship or contribution	Flat-rate	Taxes	Public	Politics
Voluntary state-subsidized	Membership, contribution	Flat-rate or earnings-related	Membership fees and taxes	Members/public	Funds, politics
Targeted	Proven need	Minimum	Taxes	Public	Politics

Table 2. Redistributive effects of sickness benefits, education and demography in 11 OECD countries, during period 1981-2000.

Country	Year	Obs	Gini coefficients			Education and demography		
			Earnings	Earnings incl. SB	Relative change*	Education**	Female***	Age****
Encompassing system								
Sweden	1981	6907	0.27920	0.26515	5.032	10.2	44.2	67.6
Sweden	1987	6275	0.28905	0.27050	6.418	10.8	46.5	69.1
Sweden	1992	8095	0.31726	0.30251	4.649	11.3	47.7	69.3
Sweden	1995	8680	0.33305	0.32181	3.375	11.5	47.8	67.1
Sweden	2000	8023	0.33829	0.32297	4.529	11.6	48.0	69.4
Denmark	1987	6741	0.27451	0.26729	2.630	10.9	45.5	54.6
Finland	1987	8500	0.28685	0.28417	0.934	10.1	47.0	42.7
Finland	1991	8373	0.29588	0.29219	1.247	10.5	47.3	43.0
Basic security system								
Denmark	1992	6862	0.29074	0.28259	2.803	11.1	46.2	57.2
Finland	1995	6540	0.33701	0.33439	0.777	10.9	47.7	43.2
Finland	2000	7401	0.32390	0.32099	0.898	11.2	48.1	46.6
Ireland	1987	1814	0.39079	0.38443	1.627	9.1	30.6	44.5
Ireland	1994	1877	0.37466	0.36928	1.436	9.8	33.1	43.0
Ireland	1995	1645	0.37182	0.36559	1.676	10.0	32.8	42.5
Ireland	1996	1524	0.37010	0.36496	1.389	10.1	33.4	43.2
Netherlands	1991	2574	0.28664	0.28257	1.420	11.3	39.1	29.0
Netherlands	1994	3157	0.30078	0.29912	0.552	11.5	39.5	30.0
Netherlands	1999	3191	0.29421	0.29274	0.500	11.9	40.4	36.2
UK	1986	3601	0.32727	0.32515	0.648	10.6	41.0	50.9
UK	1991	3638	0.3477	0.34664	0.305	11.0	42.6	53.0

UK	1994	13136	0.37082	0.37043	0.105	11.6	43.9	52.1
UK	1995	3454	0.35945	0.35820	0.348	11.6	43.2	51.4
UK	1999	12813	0.37311	0.37273	0.102	11.9	45.0	52.1
Corporatist system								
Austria	1994	1786	0.50797	0.50987	-0.374	11.4	40.3	29.5
Austria	1997	1611	0.43444	0.43427	0.039	11.7	40.3	29.9
Belgium	1985	3796	0.25365	0.03912	1.226	9.6	36.7	27.3
Belgium	1988	2171	0.24934	0.24380	2.222	9.7	38.3	22.8
France	1984	8670	0.36087	0.35907	0.499	9.7	41.4	40.1
France	1994	6827	0.35700	0.35367	0.933	10.4	44.1	35.9
Voluntary stste subsized system								
Switzerland	1992	3048	0.28724	0.28664	0.209	12.7	39.4	72.5
Targeting system								
Australia	1981	8497	0.31295	0.31184	0.355	11.6	37.3	44.2
Australia	1985	4490	0.31351	0.3126	0.290	11.9	39.1	39.7
Australia	1989	8837	0.32575	0.32496	0.243	12.1	40.9	42.6
Australia	1994	3892	0.34022	0.33972	0.147	12.3	42.3	43.7

Notes. Countries are divided into the social security typology developed by Korpi and Palme (1998). *) Calculated as (1- Gini coefficient of earnings excluding sickness benefits/ Gini coefficient of earnings including sickness benefits) × 100. **) Education = Average years of schooling in working age people, ***) Female=proportion of female in total labour force, ****) Age=labour force Participation rate in people at age 55-64 years.

Table 3. Correlation matrix of variables used in the analysis.

Variables	1	2	3	4	5	6	7	8
1. Redistribution	1.0000							
2. Encompassing	0.6895	1.0000						
	(0.0000)							
3. Corporatist	-0.2702	-0.3464	1.0000					
	(0.1283)	(0.0483)						
4. Basic security	-0.1418	-0.4276	-0.4629	1.0000				
	(0.4312)	(0.0131)	(0.0067)					
5. Targeting	-0.3276	-0.2101	-0.2274	--0.2807	1.0000			
	(0.0627)	(0.2406)	(0.2031)	(0.1135)				
6. Education in average yrs	-0.3826	-0.0506	-0.1011	-0.1783	0.4672	1.0000		
	(0.0255)	(0.7797)	(0.5755)	(0.3210)	(0.0061)			
7. Female labour in percent	0.2470	0.5749	-0.2333	-0.1925	-0.1526	0.3496	1.0000	
	(0.1591)	(0.0005)	(0.1912)	(0.2831)	(0.3965)	(0.2569)		
8. Labour force participation	0.5055	0.6512	-0.7138	0.1470	-0.0977	0.2569	0.4723	1.0000
rate in people aged 55-64 yrs	(0.0023)	(0.0000)	(0.0000)	(0.4143)	(0.5886)	(0.1424)	(0.0048)	
Mean	1.4466	-	-	-	-	10.98	41.78	46.64
Minimum	- 0.3740	-	-	-	-	9.1	30.55	22.8
Maximum	6.4175	-	-	-	-	2.7	48.1	72.5
Standard Deviation	1.6347	-	-	-	-	0.879	4.839	13.390

Note. Switzerland included.

Table 4. Relationship of social security systems with their redistributive outcomes through sickness benefits.

Variables	Model IA	Model IB	Model IIA	Model IIB
Constant	1.435*** (0.150)	1.587 *** (0.370)	3.167*** (0.958)	3.485** (1.445)
Encompassing system	Reference	Reference	Reference	Reference
Corporatist system	- 0.953*** (0.206)	-0.580* (0.242)	- 0.159 (0.349)	0.396 (0.491)
Basic security system	- 0.808*** (0.194)	-0.639*** (0.225)	- 0.561** (0.223)	- 0.434 (0.273)
Targeting system	- 1.206*** (0.260)	-1.074*** (0.389)	- 0.466 (0.373)	0.117 (0.593)
Average years of schooling in working age people			- 0.263** (0.111)	- 0.373 * (0.190)
Female in labour force in percent			- 0.017 (0.020)	- .0171 (0.023)
Labour force participation rate in people at age 55-64			0.032*** (0.010)	0.041*** (0.013)
Observation	33	33	33	33
Adjusted R-squared	0.4708	0.418	0.638	0.666
Prob>F	0.0001	0.0513	0.0000	0.0070
Year dummy	No	Yes	No	Yes
Variation inflationary factors, mean (maximum)	1.48 (1.59)	2.45 (4.15)	3.75 (6.48)	4.61 (13.89)

***, ** and * denote significant at risk levels 1%, 5% and 10% respectively.