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Editors

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Abstract

A number of studies suggest that the Europeanization process has a profound impact on national labour market policies, but fairly little research has been devoted to the development of social assistance benefit schemes across countries and over time. Relying on two new indicators, benefit levels and replacement rates, we examine the impact of the Lisbon Strategy on national social assistance policies. We find no robust effects for the first years of the Lisbon Strategy. However, after its re-launch in 2005, the Lisbon Strategy has significantly contributed to increases of national social assistance benefit levels. In addition to the Lisbon Strategy, domestic political, institutional and several economic factors also have a significant impact on social assistance benefits.

Keywords: social assistance benefit replacement rates, open method of coordination, Lisbon Strategy, Europeanization, welfare state reform

JEL Classification: H53, H55, I31, I38

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1. Introduction

Europeanization captures the impact of European integration on the member states. More specifically, it refers to the impact on national policies (Radaelli, 2002). In the field of social policy, the process of Europeanization is visible since the introduction of the Lisbon Strategy. After the Lisbon Summit in 2000, the fight against poverty and social exclusion has become one of the central tenets in the modernization of the European social model (European Council, 2000a). The Lisbon Strategy has been followed up by the Europe 2020 Strategy, which also puts forward delivering social cohesion as one of the priorities (European Commission, 2010b). A number of studies suggest that the Europeanization process has exerted impact on traditional welfare state programs such as labour market policies (Armingeon, 2007; Van Vliet and Koster, 2011; Paetzold and Van Vliet, 2014). Instead, fairly little research has been devoted to the development of social assistance benefit schemes across countries and over time. This is remarkable since these benefit schemes play a central function in combatting poverty and pursuing social inclusion. As the last resort safety net, social assistance benefits are important instruments for delivering social protection, which has been emphasized by the Lisbon Council in achieving its objectives (European Council, 2000a). In this paper, we aim to complement the existing literature by exploring the Europeanization of national social assistance policies.

However, it is difficult to directly assess to what extent national social assistance benefit reforms can be ascribed to the Lisbon strategy. As suggested by Zeitlin (2009), assessing the impact of the European strategy might be over-determined due to its non-binding character. Hence, the aim of this study is to analyze changes in social assistance benefits in the presence of the Lisbon Strategy in 2000 and its re-launch in 2005, and to explain the cross-national variation in the benefit policy changes, accounting for several political, economic and institutional factors. As such, we seek to make three contributions with this paper. First, in the welfare state literature a lot of attention has been devoted to the analysis of the determinants of the cross-national variation in the developments of total welfare state generosity, unemployment benefits and public pensions. The determinants of the variation in social assistance benefits have not been analyzed yet and this study aims to fill this gap. As a second contribution, the empirical analysis is based on two new indicators to compare the levels of social assistance benefits across countries and over time, namely net benefit levels and net replacement rates. Third, this study contributes to the Europeanization literature by analyzing the effects of the re-launch of the Lisbon Strategy in 2005. This provides insight into the effectiveness of governance instruments which have been used for the coordination of EU social programmes.

The remainder of this paper is organized as follows. In section 2 we introduce the Lisbon Strategy and the mechanisms through which this strategy influences domestic policy changes. Section 3 discusses the measures and methods used in the empirical analyses. Subsequently, section 4 presents the results of the empirical analysis. The last section concludes.

2. Europeanization of social assistance benefits

Social assistance benefits

Social assistance benefits are public transfers that are aimed at helping households to obtain an adequate standard of living and that employ a low-income criterion as the central entitlement condition (Adema, 2006; Immervoll et al, 2015). Since this broad definition encompasses several low-income programs in addition to basic allowances, such as child supplements and tax credits, 'social assistance' and 'minimum-income' benefits are used interchangeably in this paper. Dependent on the specific structure of the welfare state, social assistance generally functions as a last-resort safety net. That is, eligibility for social assistance arises if eligibility for other transfers is exhausted. In the welfare state literature, the effectiveness and efficiency of low-income targeting in reducing income inequality and financial poverty have been studied extensively (Smeeding, 2006). Recent studies show that in many European countries the levels of social assistance benefits are not adequate to lift households out of poverty (Nelson, 2013; Van Mechelen and Marchal, 2013). This paper aims to analyze the role of the EU policy coordination in the developments of benefit levels across Europe.

Europeanization

The past two decades are characterized by accelerating economic integration and increasing globalization. This has encouraged the EU to develop coordination mechanisms in order to deepen European integration, also in the fields of social and employment policies. The interaction between the EU and member states policies is called Europeanization (Vink, 2003). Europeanization can have both a direct and an indirect impact on national social protection systems, where direct effects result in implementation of EU social policies, whilst indirect effects entail the creation of a single European social model (Leibfried, 2000). In the field of social protection policy, especially with respect to social assistance benefits, the EU influence on national policies can be observed via the adoption of the Lisbon Strategy, and later the Europe 2020 Strategy.

Lisbon Strategy

Already in 1992, the European Council suggested that the member states should recognize "the basic right of a person to sufficient resources and social assistance to live in a manner compatible with human dignity" under Recommendation 92/441/EEC (European Council, 1992). This recommendation sets out common criteria to ensure or maintain adequate social assistance in social protection systems. Together with other recommendations, the 92/441/EEC recommendation represents the first milestone for an evolution of the European policy against poverty and social exclusion.

A new impetus was given in 2000 during the European Council of Lisbon. At this occasion, an ambitious goal was set for the period 2000-2010 for the EU "to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion" (European Council, 2000b). As part of EU social policy, the Lisbon Strategy is seen as a turning point in the European integration process and its social dimension (Saari and Kvist, 2007). The stand point of the strategy is to make sure that each citizen can count on basic rights and adequate resources to integrate into the society (Ferrera and Matsaganis, 2002). The actual launch came in December 2000, when the Nice European Council decided to strengthen the social dimension within the EU, that is, to fight against poverty and social exclusion. One of the objectives dealt with the most vulnerable groups where social assistance benefit schemes can play a key role (European Council, 2000a).

However, after five years of implementation, a mid-term evaluation of the Lisbon Strategy indicated that the outcomes were somewhat disappointing (European Council, 2005). In response to this critical point of view, the Lisbon Strategy was re-launched in 2005 by the Barroso Commission (Borrás, 2009). The revised Lisbon Strategy did not change the original goal of the Lisbon Strategy but oriented policy priorities to growth and employment. It was stressed that economic growth does not interfere with social policy objectives. The social model should be secured (Commission of the European Communities, 2005). In the 2005 re-launch, the most important decision was the procedural re-organization into three main steps, namely the definition of a series of European integrated guidelines, to implement these guidelines through national reform programs, and to monitor the progress country by country and also on a collective basis (Borrás and Radaelli, 2011). Following theses procedural changes, the roles of the Commission, the Council and the member states have been redefined significantly and have become clearer. Especially, the re-launch in 2005 is taken as an attempt to address the criticism of the failure of the Lisbon Strategy in the first years.

Open Method of Coordination (OMC)

European level strategies influence national policy-making processes through the social OMC. Similar to other OMC processes like the European Employment Strategy, the OMC Social Protection and Social Inclusion was launched as a framework for policy learning and coordination (Barcevičius, 2014). Leaving the responsibility of social policy to the national level, the OMC encourages the member states to provide a solution to re-enforce the European social dimension by spreading best practices and achieving greater convergence towards the main EU goals. It involves flexible and non-compulsory recommendations using guidelines and benchmarks for political cooperation (Daly, 2006). Social indicators were defined, encompassing among others financial poverty, income inequality and long-term unemployment.

In particular, the OMC social inclusion influences domestic policy reforms through three mechanisms. First, the OMC may have a normative influence. The principles and guidelines set by the Lisbon Strategy put "external pressure" on the member states. In addition, social inclusion policies are being monitored continuously, both by the EU and at the national level, creating external pressure on those involved in policy-making (Hamel and Vanhercke, 2009). Second, the OMC may function as "leverage". On the one hand, the OMC has raised attention to poverty and social inclusion issues on the political agenda in the member states. On the other hand, social actors utilize different instruments of the OMC to legitimize their own preferences in aspects of the common objectives, targets, indicators, and peer reviews (Hamel and Vanhercke, 2009). Mutual learning is the third mechanism. To enforce the Lisbon Strategy guidelines, the OMC encourages the member states to diffuse good practices and common approaches, thereby influencing the domestic policy-making process. Heidenreich and Bischoff (2008) even suggest that this cognitive dimension has been the prevailing influencing mechanism. Mutual learning works as a process of mimicking, in which national or sub-national actors imitate successful policies of other members and avoid the costs of learning because of trial and error (Hemerijck and Visser, 2003). This cognitive mechanism may influence member states on social assistance policies in two ways. First, policy-makers can learn informally from their counterparts in international networks and from benchmarks as well as the best practices filed in the Lisbon Strategy documents. Second, the formally established institutions during the process of Europeanization promote the learning process. This effect is more indirect but once a strong discourse is formulated, it would be likely to envisage great impact on domestic actors (De la Porte and Pochet, 2002b).

Although the Lisbon Strategy provides promising objectives and specific guidelines, the actual influence on the national policy reforms remains unstraightforward (Borrás and Radaelli, 2011). An overly complex structure, multiple goals and actions, and an unclear division of responsibilities and tasks were responsible for the failure of the Lisbon Strategy in the first few years (European Commission, 2010a). Meanwhile, lack of action from the member states also contributes to the failing outcomes and there are no sanctions for those failing countries. In several countries governments have put national autonomy first or defended their own social models (Preunkert and Zirra, 2009).

The re-launch of the Lisbon Strategy, however, came together with more profound national social policy reforms. For example, the new social democratic government of Germany that came into force in 2005 highly supported the social dimension of European integration and pursued reforms that were in line with the objectives of the Lisbon Strategy since then (Büchs and Hinrichs, 2007). Another example is Spain where the revised Lisbon Strategy was translated into a more specific National Reform Programme that re-orientated preferences to three pillars: employment, social protection and environment (Guillén, 2007).

As part of social protection, social assistance benefits have received a lot of attention recently (Nelson, 2008, 2010; Marchal et al, 2014). However, there is no research on how benefit reforms in this field are related to the Lisbon Strategy. In accordance with the observations above, we expect that the Lisbon Strategy had a positive impact on social assistance benefit schemes. The impact is expected to be greater after the re-launch.

Domestic politics and institutions

An important feature of Europeanization is that the impact of European integration on national policy-making depends on domestic institutions and political actors. This applies also to the OMC Social Inclusion as a legally non-binding means of governance. In the welfare state literature, partisan preferences are traditionally considered to play an important role in the direction of policy reforms (Hicks and Swank, 1992; Allan and Scruggs, 2004). The general proposition is that left-wing parties are more in favor of more generous social transfers than right-wing parties (Amble et al, 2006; Cusack et al, 2006). This claim has been examined thoroughly for several types of welfare state programs, but the available theoretical and empirical underpinning for social assistance is much thinner. In this respect, Jessoula (2014) argues that left- and right-wing preferences might differ from the general proposition. Left-wing parties may be more likely to support broader (occupational) social insurance programs rather than social assistance benefits and right-wing parties may support social assistance benefits as a less expensive program to help those harmed by market failures than social insurance programs. To account for these effects, we test to what extent left-wing parties are positively related to social assistance benefits levels.

Similarly, trade unions can generally be considered as important actors in welfare state reforms in the sense that they are strong defenders of social insurance programs (Anderson, 2001; Starke, 2006). This also applies to the domestic impact of the OMC Social Inclusion when social partners are consulted in the policy-making processes (Jacobsson and Johansson, 2009). However, it is not on beforehand clear whether trade unions have similar policy preferences regarding social assistance benefits as they have with respect to social insurances. Another difference is that in many countries trade unions have institutionalized channels of influence in labor market policy reforms as they are involved in the organization of employee insurances, whereas they have no formal responsibility in the provision of minimum income protection (Clegg, 2014). Hence, we test whether a positive association between the strength of trade unions and benefit levels also applies to social assistance.

Furthermore, political institutions are often considered as relevant factors in welfare state reforms. In majoritarian electoral systems, the inclusiveness of representation is weaker than in proportional representation electoral systems. Hence, the latter system provides more institutional opportunities for parties with egalitarian policy goals to resist benefit cuts (Swank, 2002). Therefore, it can be expected that proportional representation electoral systems are positively related to social assistance benefit levels.

Socioeconomic developments

In addition to Europanization and domestic political institutions, the comparative welfare state literature indicates that social assistance benefit reforms may also be triggered or affected by a number of socio-economic developments. High levels of unemployment lead to higher expenditures on unemployment and social assistance benefits. The resulting budgetary pressure may trigger social assistance benefit reforms. Hence, it can be expected that unemployment levels and budget deficits are negatively associated with social assistance benefit levels (Korpi and Palme, 2003). Furthermore, GDP per capita is a conventional variable in the welfare state literature. According to Wagner's law, more economically developed countries have more generous social protection systems (Hays et al, 2005). Welfare state reforms may also be influenced by globalization. There are two central hypotheses regarding the relationship between globalization and welfare state reform. According to the efficiency hypothesis, governments implement efficiency-oriented reforms in order to offer attractive conditions for firms (Garret and Mitchell, 2001). In contrast, the compensation hypothesis states that governments expand welfare states to compensate people who face increased economic risks as a result of globalization (Rodrik, 1998). In addition to the effects of globalization, increased economic risks may also stem from structural changes on domestic labor markets (Iversen and Cusack, 2000). We test the hypothesis that deindustrialization is positively related to social assistance benefits.

3. Data and methods

Dependent variable

The dependent variable of this study is the change of social assistance benefit levels. We use two indicators to measure these benefit levels. First, we use the real net benefit level, which is a relatively straightforward measure of the generosity of social assistance benefits (Olaskoaga et al, 2013). Data on benefit levels are taken from the Minimum Income Protection Interim Dataset (Nelson, 2013). Net minimum income benefits are defined as the net income from a benefit package consisting of basic social assistance, child supplements, refundable tax credits, and other benefits.[2] These benefit levels are expressed in U.S. dollars, adjusted for Purchasing Power Parity (PPP) and inflation (CPI 2005=100), which enables us to compare benefits across countries and over time. Data on PPPs are taken from the Penn World Table (Heston et al, 2012) and for the CPI we use data from the World Development Indicators (World Bank, 2012). To examine the generosity of social assistance benefits relative to the wages in a country, we use the net minimum income replacement rate as second indicator. This measure is defined as the ratio of the net benefit level to the net average production worker wage. As such, this minimum income replacement rate is constructed in a similar way as, and so comparable to, unemployment benefit replacement rates (Allan and Scruggs, 2004; Van Vliet and Caminada, 2012). However, it should be noted that the interpretation of the term minimum income replacement rate is slightly different from the unemployment replacement rate, although they share the same denominator. Since unemployed workers usually receive unemployment benefits first before they are entitled to social assistance benefits, the minimum income replacement rate does not indicate the fraction of the income from work that is actually "replaced" by income transfer programs, as is the case for the unemployment replacement rate.

[2] One-time social assistance payments to cover unexpected and urgent needs or regular supplements to cover exceptional needs are not included in this benefit package.

Although replacement rates can be seen as useful measures to compare social rights across countries and over time, they have a number of limitations too (Whiteford, 1995; Danforth and Stephens, 2013). A first limitation is that it is often difficult to capture the duration of benefit programmes with replacement rates. Arguably, this issue does not seem to apply as much to social assistance benefits as it does to unemployment benefits, as there is often no maximum duration for social assistance benefits, whereas in many countries the duration of unemployment benefits is maximized (Wang and Van Vliet, 2014). Similarly, social assistance benefit levels are – in absence of policy reforms - usually constant over time, whereas for instance unemployment benefit levels can vary over the unemployment spell of an individual. Furthermore, social assistance benefit levels are usually the same for all beneficiaries as they are not related to previous earned income, whereas unemployment or disability benefits vary across individuals.

For both the real benefit level and the replacement rate, we take an average of the indicators calculated for three household types: single persons, lone parents with two children and households with two parents and two children.[3]

Europeanization and institutional variables

This study is conducted to examine whether and how Europeanization affects national social assistance policies. First, we include a variable capturing the effect of the Lisbon Strategy 2000. Specified as a dichotomous variable, it is scored 0 for the years before 2005 and 1 afterwards. As a second Europeanization variable, we include a dichotomous variable that is scored 0 before 2005 and 1 afterwards to assess the impact of the revised Lisbon Strategy.

To examine the role of domestic politics and trade unions in social assistance benefit reform, we include the percentage of total cabinet posts held by left-wing parties and union density respectively. Data for left-wing parties and union density are taken from the Comparative Political Data Set (Armingeon et al, 2012). To account for the variation in national electoral institutions, we include a dummy variable scored 1 for a proportional representation system and 0 otherwise. Data are derived from the Dataset of Political Institutions (Beck et al, 2001).

Socioeconomic variables

[3] See Wang and Van Vliet (2014) for the developments of social assistance benefits per household type.

To account for the constraining effect of unemployment on social policy budgets, we use unemployment rate data from the World Development Indicators Dataset (World Bank, 2012). Data on budget deficits are obtained from the Comparative Political Data Set (Armingeon et al, 2012). For GDP per capita, the study relies on the Penn World Table (Heston et al, 2012). In addition, we use trade openness and capital openness to control for the effects of economic openness of a country, using data from the World Development Indicators Dataset (World Bank, 2012). Finally, Iversen and Cusack's (2000) measure of deindustrialization is constructed based on data from the OECD Labour Statistics (2015).

Method

The analyses are based on time-series-cross-section data for 21 OECD countries, including 14 Western EU countries, namely Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom. We also include 7 non-EU OECD countries – Australia, Canada, Japan, New Zealand, Norway, Switzerland and the United States. The comparison of the developments between EU and non-EU countries allows us to trace the effects of Europeanization. The year 1990 is taken as the first data year, since earlier data on social assistance benefits are not available. The analysis ends in 2009, because this is the last year of the Lisbon Strategy. Its successor, the Europe 2020 Strategy, was launched by the Commission in 2010. As this coincides with the peak of the economic crisis, it is hardly possible to distinguish the impact of Europe 2020 on domestic social policy reform from the impact of the crisis. Therefore, Europe 2020 is not included in the analysis.

To analyze the data, the study relies on an error correction model (ECM). In an ECM, first-differences of the dependent variable are regressed on the lagged level of the dependent variable and on both the first-differences and the lagged levels of the independent variables. Short-term transitory effects are captured by the first differenced variables and long-term structural effects are captured by the lagged levels (De Boef and Keele, 2008). Our estimations take the following form:

$$\Delta Y_{i,t} = \alpha + \beta Y_{i,t-1} + \sum \delta_j X_{i,t-1} + \sum \Upsilon_j \Delta X_{i,t} + \varepsilon_{i,t} \qquad (1)$$

Here, α refers to the intercept. $\Delta Y_{i,t}$ stands for the changes in the dependent variable in country *i* and year *t*. $Y_{i,t-1}$ represents the lagged levels of the dependent variable. The first differences and lagged levels of the explanatory variables are expressed by $\Delta X_{i,t}$ and $X_{i,t-1}$ respectively and $\varepsilon_{i,t}$ is the error term. Long-term effects of the levels ($X_{i,t-1}$) are calculated by (Υ_j/-β).

An ECM accounts for problems of autocorrelation and non-stationarity. Furthermore, panel-corrected standard errors are used to correct for panel heteroscedasticity and contemporaneous spatial correlation (Beck and Katz, 1995). The main regressions do not include fixed effects, as a dynamic model may generate inconsistent estimations in that case (Nickell, 1981). However, fixed effects models will be presented as robustness checks.

4. Empirical results

Trends in the minimum income indicators

Table 1 presents the developments of the real levels of annual net minimum income benefits over the period 1990-2009. The data show that the minimum income benefit levels, expressed in real U.S. dollars (CPI 2005=100), vary substantially across countries. In 2009, the highest benefit levels could be observed in Luxembourg, followed by Japan, Denmark, Ireland, and Italy. Portugal, Spain and the United States are the countries with the lowest benefit levels. Remarkably, between 1990 and 2005, the average benefits are higher in the non-EU OECD countries than in the EU countries. In 2009, however, benefit levels were on average higher in the EU countries than in the non-EU countries.

The data show considerable variation over time. In most countries, benefit levels have been raised in real terms between 1990 and 2009, implying that the increase of the benefit levels exceeded that of the consumer prices. The largest increases occurred in Luxembourg, Japan and Denmark. Meanwhile, there are also several countries where benefit levels were reduced in this period. The sharpest decrease can be observed in Spain, followed by Finland. Interestingly, for both country groups, the benefit levels on average decreased before 2000. However, after 2000 and especially after 2005, the benefit levels began to show substantial increases.

Table 1. Real minimum income benefit levels, 1990-2009

	1990	1995	2000	2005	2009	change 1990-2009
Australia	12,231	13,524	13,870	16,163	16,874	4,643
Austria	10,545	11,484	11,311	11,601	12,398	1,853
Belgium	12,452	13,696	12,811	13,261	14,861	2,408
Canada	16,311	16,323	13,072	12,851	13,924	-2,387
Denmark	10,806	15,777	16,594	17,955	18,247	7,441
Finland	13,158	10,698	9,548	10,192	10,263	-2,895
France	7,195	7,796	8,474	8,721	9,090	1,895
Germany	9,239	9,767	9,640	11,724	11,998	2,760
Ireland	11,434	10,889	10,680	12,986	17,680	6,246
Italy	19,735	11,223	13,096	14,882	17,092	-2,643
Japan	11,174	12,403	13,671	16,659	18,643	7,469
Luxembourg	13,877	20,275	19,422	21,977	27,923	14,047
Netherlands	14,723	16,572	14,998	14,841	17,179	2,456
New Zealand	10,096	9,709	9,736	10,854	11,417	1,321
Norway	9,250	11,821	13,938	13,507	12,819	3,570
Portugal	.	5,226	5,542	6,071	6,787	.
Spain	16,153	8,870	7,643	7,786	8,134	-8,019
Sweden	11,081	10,068	8,756	9,468	9,775	-1,306
Switzerland	11,145	11,219	12,654	11,497	11,637	492
United Kingdom	9,006	9,032	10,341	11,413	13,001	3,994
United States	9,623	8,920	7,956	7,805	7,497	-2,126
Mean OECD-21	.	11,681	11,607	12,486	13,678	.
Standard deviation	.	3,432	3,295	3,769	4,896	.
Coefficient of variation	.	0.29	0.28	0.30	0.36	.
Mean EU-14	.	11,527	11,347	12,349	13,888	.
Standard deviation	.	3,903	3,547	3,901	5,171	.
Coefficient of variation	.	0.34	0.31	0.32	0.37	.

Note: Net benefits per year in US dollars, corrected for inflation (2005=100) and PPP; simple average of minimum income benefits of three household types: single person, lone parents with two children and two parents with two children. Data years are around 1990 (Germany, 1991), and around 1995 (Portugal, 1996).

Source: Social Assistance and Minimum Income Protection Interim Dataset (Nelson, 2013) and own calculations.

Table 2 presents the developments of the net minimum income replacement rates between 1990 and 2009. As is the case for benefit levels, the minimum income replacement rates varied considerably across countries. In 2009 Luxembourg and Italy had the highest replacement rates, while the United States was the country with the lowest replacement rate. In most countries, replacement rates declined during the 1990s. In the EU countries, replacement rates increased in particular after 2005.

Interestingly, the ranking of replacement rates is not completely in line with the ranking of the benefit levels, reflecting differences in the wage levels across countries. For instance, from 2000 onwards, Portugal had below-average benefit levels whilst it had above-average replacement rates. For most countries, the real benefit levels and the replacement rates show parallel developments. For example, in Austria, Denmark and Germany, both indicators show an increase, whereas Canada, Finland and the United States experienced decreases in both indicators. However, in Australia, Belgium and the Netherlands the benefit levels increased but replacement rates dropped. In Italy, the benefit level was reduced, but the replacement rate increased between 1990 and 2009. Overall, the correlation between the benefit level and replacement rate is 0.7.

Finally, for both indicators, the standard deviation and the coefficient of variation increased both within and outside the EU. The diverging trend of minimum income benefit schemes is remarkable, as convergence has been found for many other welfare state programs (Caminada et al, 2010).

Table 2. Minimum income replacement rates, 1990-2009

	1990	1995	2000	2005	2009	change 1990-2009
Australia	47.8	47.5	45.7	45.3	40.9	-6.9
Austria	43.4	45.1	43.5	43.7	44.4	1.0
Belgium	47.7	48.5	47.7	46.3	47.3	-0.4
Canada	61.0	60.7	47.7	41.7	42.7	-18.3
Denmark	53.2	67.4	67.2	64.6	61.7	8.5
Finland	58.6	53.4	46.0	41.2	39.0	-19.6
France	40.6	40.4	40.6	39.1	38.0	-2.5
Germany	36.6	37.6	33.6	38.3	36.9	0.3
Ireland	48.4	46.9	39.9	44.4	50.9	2.5
Italy	57.7	53.8	56.1	62.4	67.1	9.3
Japan	54.0	55.9	56.4	57.5	59.6	5.6
Luxembourg	46.7	60.2	56.9	59.7	72.2	25.5
Netherlands	59.3	60.9	55.3	48.8	51.7	-7.6
New Zealand	50.8	47.4	42.5	43.1	38.0	-12.9
Norway	39.7	44.5	51.7	45.1	41.9	2.1
Portugal	.	45.3	49.0	49.9	49.7	.
Spain	50.9	39.5	34.0	35.0	34.0	-16.9
Sweden	60.9	58.9	44.4	43.1	38.7	-22.2
Switzerland	38.7	38.1	41.4	32.9	30.8	-8.0
United Kingdom	38.0	39.9	38.5	37.5	41.8	3.8
United States	35.0	32.3	26.8	24.6	22.5	-12.5
Mean OECD-21	.	48.8	45.9	45.0	45.2	.
Standard deviation	.	9.4	9.3	9.8	12.1	.
Coefficient of variation	.	0.19	0.20	0.22	0.27	.
Mean EU-14	.	49.8	46.6	46.7	48.1	.
Standard deviation	.	9.4	9.1	9.4	11.8	.
Coefficient of variation	.	0.19	0.20	0.20	0.25	.

Note: Simple average of minimum income replacement rates of three household types: single persons, lone parents with two children and two parents with two children.
Data years are around 1995 (Portugal, 1996).

Source: Social Assistance and Minimum Income Protection Interim Dataset (Nelson, 2013) and own calculations.

Regression results

The results of the regressions are presented in Table 3. First and foremost, both the Lisbon Strategy 2000 and the revised Lisbon Strategy 2005 are positively and significantly related to real minimum income benefits and minimum income replacement rates. In line with our hypothesis, these results suggest that the Lisbon Strategy 2000 and 2005 have contributed to positive developments of minimum income benefits.

Regarding the domestic politics variables, the results indicate that left-wing governments have a positive and significant effect on social assistance benefits in the short run. This result seems to suggest that the general hypothesis that left-wing parties have a preference for more generous welfare states also applies to social assistance benefits. However, this result should be interpreted with caution, as the coefficients for replacement rates and for the long-run effects are positive but insignificant. The results for the role of trade unions are comparable in this respect. The positive and significant short-run effect for replacement rates suggests that trade unions act as defenders of social assistance, as they also do for social insurance programs. However, the evidence is weak, as the coefficients for the benefit levels and the long-run effects are insignificant. Furthermore, the results indicate that proportional representation electoral systems are positively related to social assistance benefit levels, which corresponds to our expectations.

Turning to the socioeconomic variables, the effect of unemployment supports our hypothesis that rising unemployment has been followed by retrenchments of social assistance benefits. We find a negative and significant sign for government deficits, which is in line with studies on labor market programs (Allan and Scruggs, 2004). Interestingly, the coefficient for GDP per capita is strongly positive in the regressions for real minimum income benefits, but it is insignificant in the estimations of the replacement rate. One possible explanation might be that although governments put more efforts on social protection as income increases, average production wages increase as well, resulting in insignificant effects. Furthermore, the results for deindustrialization suggest that structural transitions on the labor market are associated with higher social assistance benefits, although significant coefficients can only be found for the short run. Finally, trade openness is negatively and significantly related to social assistance benefits, which provides support for the efficiency hypothesis. The results for capital openness are insignificant.

Table 3. ECM regression results in 21 OECD countries, 1990-2009

	Real minimum income benefits			Minimum income replacement rates		
Lisbon Strategy 2000	164.640***		90.663*	0.453***		0.319**
	[3.78]		[1.79]	[2.80]		[1.99]
Lisbon Strategy 2005		223.484***	163.541***		0.517***	0.299**
		[3.38]	[2.64]		[2.82]	[1.98]
Δ Left government	2.122**	1.772*	1.918*	0.005	0.004	0.004
	[2.14]	[1.72]	[1.85]	[1.33]	[1.08]	[1.21]
Left government (t-1)	0.365	0.342	0.286	0.00	0.001	0.00
	[0.73]	[0.64]	[0.54]	[0.22]	[0.29]	[0.13]
Δ Union density	-26.447	-17.944	-20.607	0.162*	0.182**	0.173**
	[-1.04]	[-0.68]	[-0.77]	[1.93]	[2.21]	[2.03]
Union density (t-1)	0.822	0.844	0.88	0.002	0.003	0.003
	[0.87]	[0.89]	[0.92]	[0.73]	[0.81]	[0.78]
Δ Unemployment	-177.199***	-182.577***	-178.505***	-0.322***	-0.338***	-0.325***
	[-5.60]	[-5.55]	[-5.52]	[-3.41]	[-3.51]	[-3.36]
Unemployment (t-1)	-26.262***	-30.244***	-28.398***	-0.047	-0.057*	-0.051
	[-5.03]	[-5.78]	[-5.34]	[-1.38]	[-1.70]	[-1.48]
Δ Deficit	-42.299***	-41.990***	-41.704***	-0.048	-0.048	-0.047
	[-3.21]	[-3.23]	[-3.29]	[-1.03]	[-1.03]	[-1.02]
Deficit (t-1)	-48.470***	-45.776***	-46.341***	-0.102***	-0.096***	-0.099***
	[-5.77]	[-5.18]	[-5.31]	[-3.50]	[-3.26]	[-3.32]
Δ GDP per capita*10^{-3}	100.868**	114.904***	118.846***	0.053	0.076	0.085
	[2.42]	[2.67]	[2.84]	[0.34]	[0.49]	[0.55]
GDP per capita*10^{-3} (t-1)	15.305***	12.519**	13.244**	0.005	-0.004	0.001
	[2.73]	[2.28]	[2.47]	[0.26]	[-0.20]	[0.03]
Δ Deindustrialization	147.063***	159.415***	155.874***	0.299**	0.325**	0.314**
	[4.29]	[4.44]	[4.46]	[2.35]	[2.48]	[2.44]
Deindustrialization (t-1)	2.642	4.654	2.937	-0.019	-0.015	-0.019
	[0.48]	[0.81]	[0.52]	[-0.88]	[-0.68]	[-0.86]
Δ Trade openness	-18.944***	-18.607***	-19.276***	-0.031*	-0.029*	-0.031*
	[-3.88]	[-3.66]	[-4.00]	[-1.82]	[-1.67]	[-1.81]
Trade openness (t-1)	0.987	1.007	0.734	-0.001	-0.001	-0.001
	[1.46]	[1.60]	[1.05]	[-0.35]	[-0.19]	[-0.50]
Δ Capital openness	-0.206	-0.25	-0.312	0.002	0.002	0.001
	[-0.42]	[-0.46]	[-0.60]	[0.71]	[0.67]	[0.63]
Capital openness (t-1)	-0.281	0.058	-0.129	0.00	0.001	0.001
	[-0.44]	[0.09]	[-0.20]	[0.11]	[0.36]	[0.20]
Electoral system	132.515*	143.860**	133.752*	0.357	0.376	0.358
	[1.88]	[2.04]	[1.92]	[1.51]	[1.57]	[1.52]
LDV	-0.019	-0.023*	-0.02	-0.019*	-0.021**	-0.020*
	[-1.50]	[-1.79]	[-1.57]	[-1.89]	[-2.08]	[-1.95]
Constant	-510.845	-511.782	-439.825	1.91	1.988*	2.084*
	[-1.34]	[-1.28]	[-1.13]	[1.59]	[1.65]	[1.71]
N	364	364	364	364	364	364
Adj. R^2	0.136	0.139	0.139	0.025	0.024	0.024

Note: Unstandardized coefficients; t statistics in the parentheses.

* significant at 0.1; ** significant at 0.05; *** significant at 0.01.

Simple average of real minimum income benefits and minimum income replacement rates of three household types: single persons, lone parents with two children and two parents with two children.

Sensitivity analyses

To examine the robustness of the results, we employ two sensitivity analyses. First, the benefit levels and replacement rates presented above are averages of the social assistance benefits of three household types, namely single persons, lone parents and two parents. As a sensitivity analysis, we run the regressions for each household type. The tables are presented in the appendix. The results are largely replicated.

Second, the error correction models presented above do not explicitly control for country and year fixed effects. To examine the robust of the results, we utilize fixed effect models to deal with the heterogeneity of the intercepts (Beck and Katz, 2011). The estimated equation is expressed as follows:

$$Y_{i,t} = \alpha + \sum \beta^j X^j_{i,t-1} + \mu_i + \lambda_t + \varepsilon_{i,t}$$

Here, $Y_{i,t}$ is the level of the dependent variable, α refers to the intercept and $X_{i,\,t-1}$ denotes the lagged level of the explanatory variables. We use a country dummy μ and a year dummy λ to control for unobserved country- and year-specific effects. Furthermore, panel-corrected standard errors are applied to correct for panel heteroscedasticity and contemporaneous spatial correlation (Beck and Katz, 1995). A Prais-Winsten transformation is applied to correct for autocorrelation.

The results of the regressions are presented in Table 4. The coefficients for the Lisbon Strategy 2000 are not significant anymore. The re-launch of the Lisbon strategy in 2005, on the other hand, shows significantly positive effects. Taken together, these results indicate that we do not find robust effects for the Lisbon Strategy 2000, whereas we do find robust results for the Lisbon strategy 2005. This suggests that the Lisbon strategy 2000 did not have an influence on national social assistance policies, but that – in line with our hypothesis - the re-launch in 2005 has increased the effectiveness of the Lisbon strategy.

Furthermore, Table 4 shows that the results for left-wing parties, government deficits and GDP per capita are robust. In line with the results presented above, trade openness yields a negative effect and the negative effect of capital openness strengthens the support for the idea that globalization affects national minimum income protection via the efficiency mechanism. Finally, the coefficients for union density, unemployment, deindustrialization and the electoral system are not significant or even significant in the opposite direction, indicating that the results for these variables presented in Table 3 are not robust for the use of fixed effects.

Table 4. Fixed effects regression results in 21 OECD countries, 1990-2009

	Real minimum income benefits			Minimum income replacement rates		
Lisbon Strategy 2000	111.556		31.736	0.65		0.302
	[0.56]		[0.19]	[0.63]		[0.38]
Lisbon Strategy 2005		402.764**	396.186*		2.503***	2.466***
		[2.07]	[1.94]		[2.97]	[2.89]
Left government (t-1)	3.807***	3.767***	3.759***	0.006	0.006	0.006
	[2.99]	[3.02]	[3.01]	[1.24]	[1.21]	[1.19]
Union density (t-1)	-113.591***	-113.102***	-113.150***	0.017	0.01	0.009
	[-4.50]	[-4.43]	[-4.42]	[0.21]	[0.12]	[0.10]
Unemployment (t-1)	63.629	62.399	63.165	0.21	0.192	0.198
	[1.30]	[1.27]	[1.27]	[1.60]	[1.41]	[1.43]
Deficit (t-1)	-61.417***	-59.549***	-59.349***	-0.158***	-0.154**	-0.153**
	[-2.76]	[-2.69]	[-2.67]	[-2.66]	[-2.56]	[-2.52]
GDP per capita*10^{-3} (t-1)	101.798**	103.802**	103.931**	-0.035	-0.02	-0.018
	[2.08]	[2.14]	[2.14]	[-0.20]	[-0.12]	[-0.11]
Deindustrialization (t-1)	-33.879	-33.941	-34.232	-0.466**	-0.446**	-0.445**
	[-0.51]	[-0.51]	[-0.51]	[-2.39]	[-2.28]	[-2.28]
Trade openness (t-1)	-25.683**	-27.824***	-27.948***	-0.065**	-0.081***	-0.083***
	[-2.31]	[-2.64]	[-2.60]	[-2.05]	[-2.77]	[-2.80]
Capital openness (t-1)	-4.084**	-4.021**	-4.021**	-0.011**	-0.011**	-0.011**
	[-2.37]	[-2.33]	[-2.33]	[-2.46]	[-2.34]	[-2.34]
Electoral system	-392.429	-367.434	-363.736	0.708	0.688	0.697
	[-0.75]	[-0.66]	[-0.66]	[0.31]	[0.29]	[0.30]
Constant	18496.25***	18510.04***	18534.11***	84.958***	84.129***	84.177***
	[3.72]	[3.69]	[3.70]	[5.01]	[4.98]	[4.98]
N	369	369	369	369	369	369
Adj. R^2	0.829	0.829	0.829	0.864	0.869	0.869

Note: Unstandardized coefficients; t statistics in parentheses; Prais-Winsten transformation [AR(1) disturbances].
* significant at 0.1; ** significant at 0.05; *** significant at 0.01.
Simple average of real minimum income benefits and minimum income replacement rates of three household types: single persons, lone parents with two children and two parents with two children.

5. Conclusions and discussion

The literature on the Europeanization of social protection has been mainly focused on national labor market policies. In contrast, far less research has been devoted to the impact of the Lisbon Strategy on reforms of social assistance benefit schemes. In this paper, we examine the determinants of the variation in the development of social assistance benefits across 14 Western European countries and 7 non-European countries over the period 1990-2009. In particular, the analysis focused on the role of the Lisbon Strategy that was adopted by the European Council to combat poverty and social exclusion across Europe. The question is to what extent national policy changes can be ascribed to this strategy or, in other words, do we see a Europeanization of social assistance and minimum income benefits? To analyze this question we use pooled time series cross-section regression analyses, accounting for a number of political, economic and institutional factors.

For the first years after the adoption of the Lisbon Strategy in 2000, our analysis does not show robust associations between the OMC Social Inclusion and national social assistance policy reforms. This result is in line with existing case-study evidence (Graziano and Jessoula, 2011). Interestingly, for the years after the re-launch of the Lisbon Strategy in 2005, our analysis suggests that the OMC Social Inclusion has contributed to increases of social assistance benefit levels. This finding seems to indicate that the revision of the OMC Social Inclusion has increased its effectiveness, which is in line with the goal of the revision. Although these results are robust for different model specifications and two different indicators of social assistance benefits, we should note an important limitation of our analysis. Benefit levels and replacement rates provide an indication of only one dimension of social assistance policies. Variation in other institutional characteristics, such as activation requirements for instance, are not taken into account.

Finally, a remaining question is how the interaction between EU coordination and national social policies will progress given recent European developments. With the adoption of the Europe 2020 Strategy and the European Semester, the coordination of social policies is under development (Bekker and Klosse, 2013; Zeitlin and Vanhercke, 2014). Simultaneously, in many countries the economic crisis has triggered substantial austerity programs and major welfare state reforms. Future research should shed more light on the developments of minimum income protection.

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Table A1: ECM regression results for single persons, 1990-2009

	Real minimum income benefits for single			Minimum income replacement rates for		
Lisbon Strategy 2000	63.644**		29.623	0.168		0.105
	[2.19]		[0.91]	[1.57]		[0.96]
Lisbon Strategy 2005		95.420**	76.755*		0.213*	0.143
		[2.55]	[1.86]		[1.94]	[1.29]
Δ Left government	1.341***	1.210**	1.253**	0.005***	0.005**	0.005***
	[2.73]	[2.41]	[2.48]	[2.71]	[2.57]	[2.61]
Left government (t-1)	0.203	0.203	0.172	0.001	0.001	0.001
	[0.73]	[0.67]	[0.58]	[1.03]	[1.05]	[0.97]
Δ Union density	-12.306	-8.717	-9.673	0.097*	0.105*	0.102*
	[-0.95]	[-0.66]	[-0.72]	[1.73]	[1.89]	[1.80]
Union density (t-1)	1.041**	1.021*	1.062**	0.001	0.001	0.001
	[2.00]	[1.94]	[2.01]	[0.69]	[0.67]	[0.69]
Δ Unemployment	-102.165***	-103.803***	-102.646***	-0.262***	-0.267***	-0.263***
	[-5.74]	[-5.90]	[-5.80]	[-4.13]	[-4.26]	[-4.16]
Unemployment (t-1)	-16.859***	-18.282***	-17.780***	-0.025*	-0.029**	-0.027**
	[-4.83]	[-5.63]	[-5.42]	[-1.83]	[-2.25]	[-2.02]
Δ Deficit	-22.169***	-21.877***	-21.937***	-0.023	-0.022	-0.022
	[-3.03]	[-3.04]	[-3.10]	[-0.76]	[-0.76]	[-0.76]
Deficit (t-1)	-28.064***	-26.767***	-27.053***	-0.061***	-0.058***	-0.059***
	[-6.40]	[-5.81]	[-5.94]	[-3.20]	[-3.02]	[-3.05]
Δ GDP per capita*10^{-3}	30.024	37.761	38.955	-0.039	-0.025	-0.023
	[1.13]	[1.44]	[1.50]	[-0.45]	[-0.29]	[-0.26]
GDP per capita*10^{-3} (t-1)	7.362***	6.133***	6.359***	0.003	0.00	0.001
	[3.00]	[2.64]	[2.74]	[0.30]	[-0.00]	[0.13]
Δ Deindustrialization	66.285***	71.814***	70.406***	0.232***	0.244***	0.239***
	[3.39]	[3.66]	[3.63]	[3.13]	[3.23]	[3.18]
Deindustrialization (t-1)	2.442	3.09	2.456	-0.019	-0.018	-0.019
	[0.96]	[1.17]	[0.95]	[-1.39]	[-1.30]	[-1.38]
Δ Trade openness	-8.623***	-8.614***	-8.828***	-0.020*	-0.020*	-0.021*
	[-2.70]	[-2.63]	[-2.75]	[-1.75]	[-1.72]	[-1.78]
Trade openness (t-1)	1.266***	1.262***	1.143**	0.001	0.001	0.001
	[2.84]	[3.05]	[2.54]	[0.56]	[0.65]	[0.38]
Δ Capital openness	0.044	0.004	-0.015	0.001	0.001	0.00
	[0.15]	[0.01]	[-0.05]	[0.43]	[0.37]	[0.34]
Capital openness (t-1)	-0.066	0.05	-0.01	0.00	0.00	0.00
	[-0.19]	[0.14]	[-0.03]	[0.03]	[0.20]	[0.09]
Electoral system	95.898***	100.576***	95.201***	0.241***	0.248***	0.238**
	[4.40]	[4.55]	[4.46]	[2.58]	[2.61]	[2.54]
LDV	-0.017**	-0.019***	-0.017**	-0.011**	-0.012**	-0.011**
	[-2.48]	[-2.75]	[-2.52]	[-2.08]	[-2.13]	[-2.02]
Constant	-402.014**	-397.581**	-363.192**	1.394	1.406	1.469
	[-2.30]	[-2.17]	[-2.05]	[1.53]	[1.55]	[1.59]
N	364	364	364	364	364	364
Adj. R^2	0.136	0.126	0.124	0.026	0.027	0.024

Note: Unstandardized coefficients; t statistics in the parentheses.
* significant at 0.1; ** significant at 0.05; *** significant at 0.01.
Simple average of real minimum income benefits and minimum income replacement rates of three household types: single persons, lone parents with two children and two parents with two children.

Table A2: ECM regression results for lone parents, 1990-2009

	Real minimum income benefits for lone			Minimum income replacement rates for lone		
Lisbon Strategy 2000	190.254***		106.890**	0.545***		0.389**
	[4.30]		[2.00]	[3.50]		[2.45]
Lisbon Strategy 2005		255.187***	184.193***		0.615***	0.348**
		[3.63]	[2.91]		[3.22]	[2.13]
Δ Left government	1.361	0.961	1.13	0.00	-0.001	-0.001
	[1.15]	[0.79]	[0.92]	[-0.12]	[-0.38]	[-0.23]
Left government (t-1)	-0.04	-0.076	-0.133	-0.002	-0.002	-0.003
	[-0.07]	[-0.13]	[-0.22]	[-1.34]	[-1.31]	[-1.44]
Δ Union density	-39.286	-29.536	-32.68	0.138	0.162	0.151
	[-1.31]	[-0.96]	[-1.04]	[1.37]	[1.63]	[1.48]
Union density (t-1)	-0.806	-0.854	-0.759	-0.001	-0.001	0.00
	[-0.70]	[-0.75]	[-0.67]	[-0.25]	[-0.19]	[-0.16]
Δ Unemployment	-176.573***	-182.914***	-178.086***	-0.242**	-0.261**	-0.245**
	[-4.96]	[-4.92]	[-4.86]	[-2.30]	[-2.42]	[-2.26]
Unemployment (t-1)	-30.715***	-35.481***	-33.185***	-0.062	-0.075*	-0.067
	[-5.17]	[-5.91]	[-5.41]	[-1.41]	[-1.73]	[-1.50]
Δ Deficit	-60.095***	-60.075***	-59.501***	-0.102**	-0.103**	-0.101**
	[-3.96]	[-4.03]	[-4.08]	[-2.13]	[-2.14]	[-2.13]
Deficit (t-1)	-50.338***	-47.612***	-48.036***	-0.104***	-0.097***	-0.099***
	[-4.87]	[-4.39]	[-4.50]	[-3.51]	[-3.23]	[-3.31]
Δ GDP per capita*10^{-3}	137.965***	153.380***	158.063***	0.126	0.15	0.162
	[2.80]	[3.01]	[3.19]	[0.75]	[0.89]	[0.97]
GDP per capita*10^{-3} (t-1)	14.967**	11.580*	12.596**	-0.004	-0.016	-0.01
	[2.45]	[1.93]	[2.16]	[-0.19]	[-0.64]	[-0.40]
Δ Deindustrialization	143.795***	156.810***	153.420***	0.191	0.219	0.208
	[3.69]	[3.87]	[3.88]	[1.29]	[1.44]	[1.40]
Deindustrialization (t-1)	4.924	7.294	5.284	-0.006	0.00	-0.005
	[0.74]	[1.05]	[0.78]	[-0.25]	[-0.00]	[-0.22]
Δ Trade openness	-21.695***	-21.325***	-22.072***	-0.028	-0.027	-0.029
	[-4.15]	[-3.94]	[-4.33]	[-1.61]	[-1.45]	[-1.61]
Trade openness (t-1)	0.633	0.647	0.342	-0.003	-0.002	-0.003
	[0.74]	[0.81]	[0.39]	[-0.89]	[-0.73]	[-1.04]
Δ Capital openness	-0.202	-0.241	-0.317	0.003	0.003	0.003
	[-0.37]	[-0.40]	[-0.55]	[1.08]	[1.06]	[1.01]
Capital openness (t-1)	-0.159	0.242	0.017	0.002	0.003	0.002
	[-0.22]	[0.31]	[0.02]	[0.49]	[0.77]	[0.58]
Electoral system	150.698	161.403	151.629	0.457	0.478	0.459
	[1.50]	[1.61]	[1.52]	[1.37]	[1.43]	[1.38]
LDV	-0.018	-0.022	-0.019	-0.027**	-0.030**	-0.028**
	[-1.23]	[-1.49]	[-1.29]	[-2.08]	[-2.29]	[-2.12]
Constant	-582.26	-575.687	-500.204	1.902	2.028	2.121
	[-1.25]	[-1.18]	[-1.05]	[1.48]	[1.56]	[1.62]
N	364	364	364	364	364	364
Adj. R^2	0.140	0.143	0.144	0.028	0.026	0.027

Note: Unstandardized coefficients; t statistics in the parentheses.

* significant at 0.1; ** significant at 0.05; *** significant at 0.01.

Simple average of real minimum income benefits and minimum income replacement rates of three household types: single persons, lone parents with two children and two parents with two children.

Table A3: ECM regression results for two parents, 1990-2009

	Real minimum income benefits for two parents			Minimum income replacement rates for two		
Lisbon Strategy 2000	251.169***		149.537*	0.659***		0.464*
	[3.81]		[1.93]	[2.66]		[1.81]
Lisbon Strategy 2005		326.715***	225.518**		0.760***	0.442*
		[3.26]	[2.50]		[2.64]	[1.79]
Δ Left government	3.807**	3.295**	3.520**	0.008	0.007	0.008
	[2.36]	[1.97]	[2.10]	[1.42]	[1.21]	[1.30]
Left government (t-1)	1.052	1.04	0.935	0.001	0.002	0.001
	[1.34]	[1.26]	[1.13]	[0.53]	[0.63]	[0.43]
Δ Union density	-29.439	-17.553	-21.453	0.256**	0.284**	0.273**
	[-0.82]	[-0.47]	[-0.57]	[2.17]	[2.42]	[2.26]
Union density (t-1)	2.035	2.175	2.164	0.009	0.01	0.01
	[1.37]	[1.47]	[1.42]	[1.32]	[1.35]	[1.37]
Δ Unemployment	-250.441***	-258.993***	-252.385***	-0.474***	-0.496***	-0.478***
	[-5.46]	[-5.37]	[-5.37]	[-3.36]	[-3.42]	[-3.30]
Unemployment (t-1)	-29.844***	-35.679***	-32.827***	-0.064	-0.078	-0.071
	[-3.38]	[-3.90]	[-3.60]	[-1.23]	[-1.48]	[-1.33]
Δ Deficit	-45.479**	-45.365**	-44.666**	-0.02	-0.021	-0.018
	[-2.11]	[-2.11]	[-2.13]	[-0.26]	[-0.27]	[-0.24]
Deficit (t-1)	-66.913***	-62.933***	-63.964***	-0.147***	-0.137***	-0.141***
	[-5.02]	[-4.56]	[-4.67]	[-2.96]	[-2.78]	[-2.82]
Δ GDP per capita*10^{-3}	143.116**	162.679**	167.698***	0.038	0.078	0.085
	[2.27]	[2.47]	[2.62]	[0.15]	[0.30]	[0.33]
GDP per capita*10^{-3} (t-1)	22.820**	18.840**	20.057**	0.008	-0.004	0.002
	[2.49]	[2.07]	[2.25]	[0.26]	[-0.11]	[0.05]
Δ Deindustrialization	230.441***	248.854***	242.706***	0.447**	0.487**	0.469**
	[4.31]	[4.42]	[4.44]	[2.22]	[2.35]	[2.30]
Deindustrialization (t-1)	-1.476	1.223	-1.096	-0.032	-0.026	-0.032
	[-0.17]	[0.14]	[-0.13]	[-1.05]	[-0.87]	[-1.04]
Δ Trade openness	-27.402***	-26.837***	-27.826***	-0.041	-0.04	-0.042
	[-3.69]	[-3.44]	[-3.77]	[-1.56]	[-1.45]	[-1.56]
Trade openness (t-1)	1.013	1.062	0.649	-0.002	-0.002	-0.003
	[0.99]	[1.07]	[0.61]	[-0.47]	[-0.34]	[-0.61]
Δ Capital openness	-0.621	-0.697	-0.765	0.002	0.002	0.002
	[-0.77]	[-0.80]	[-0.91]	[0.64]	[0.57]	[0.57]
Capital openness (t-1)	-0.86	-0.389	-0.649	0.00	0.001	0.001
	[-0.80]	[-0.34]	[-0.59]	[0.02]	[0.22]	[0.10]
Electoral system	129.743	141.8	131.012	0.356	0.371	0.356
	[1.23]	[1.35]	[1.26]	[1.05]	[1.08]	[1.05]
LDV	-0.015	-0.019	-0.016	-0.023*	-0.024**	-0.024**
	[-1.21]	[-1.50]	[-1.30]	[-1.94]	[-2.03]	[-2.02]
Constant	-459.303	-449.612	-357.979	3.184**	3.301**	3.485**
	[-0.83]	[-0.78]	[-0.64]	[2.04]	[2.11]	[2.21]
N	364	364	364	364	364	364
Adj. R^2	0.113	0.114	0.115	0.019	0.018	0.018

Note: Unstandardized coefficients; t statistics in the parentheses.
* significant at 0.1; ** significant at 0.05; *** significant at 0.01.
Simple average of real minimum income benefits and minimum income replacement rates of three household types: single persons, lone parents with two children and two parents with two children.

Table B1: Fixed effects results for single persons, 1990-2009

	Real minimum income benefits for single persons			Minimum income replacement rates for		
Lisbon Strategy 2000	68.683		25.393	0.442		0.192
	[0.55]		[0.25]	[0.78]		[0.47]
Lisbon Strategy 2005		249.895**	245.522**		1.253***	1.250***
		[2.13]	[2.03]		[2.78]	[2.75]
Left government (t-1)	2.024***	1.986***	1.981***	0.005*	0.004	0.004
	[2.76]	[2.75]	[2.73]	[1.65]	[1.55]	[1.56]
Union density (t-1)	-57.439***	-57.134***	-57.184***	-0.032	-0.025	-0.028
	[-4.47]	[-4.34]	[-4.33]	[-0.53]	[-0.39]	[-0.45]
Unemployment (t-1)	24.06	22.858	23.398	0.04	0.034	0.037
	[0.85]	[0.81]	[0.82]	[0.48]	[0.39]	[0.42]
Deficit (t-1)	-31.581**	-30.565**	-30.409**	-0.110***	-0.101***	-0.102***
	[-2.48]	[-2.41]	[-2.39]	[-2.90]	[-2.79]	[-2.75]
GDP per capita*10^{-3} (t-1)	50.748*	51.757*	51.823*	-0.121	-0.114	-0.114
	[1.84]	[1.87]	[1.87]	[-1.21]	[-1.12]	[-1.14]
Deindustrialization (t-1)	-13.079	-13.639	-13.778	-0.237*	-0.238*	-0.237*
	[-0.35]	[-0.37]	[-0.37]	[-1.91]	[-1.91]	[-1.90]
Trade openness (t-1)	-5.561	-6.846	-6.936	-0.019	-0.024	-0.026
	[-0.83]	[-1.05]	[-1.05]	[-0.99]	[-1.29]	[-1.35]
Capital openness (t-1)	-2.267**	-2.227**	-2.227**	-0.007**	-0.007**	-0.007**
	[-2.49]	[-2.44]	[-2.45]	[-2.51]	[-2.46]	[-2.45]
Electoral system	-189.473	-174.485	-172.179	-0.173	-0.056	-0.071
	[-0.90]	[-0.74]	[-0.74]	[-0.16]	[-0.04]	[-0.06]
Constant	9318.182***	9377.559***	9392.079***	52.095***	51.950***	52.015***
	[3.46]	[3.49]	[3.50]	[5.06]	[5.05]	[5.04]
N	369	369	369	369	369	369
Adj. R^2	0.841	0.839	0.838	0.874	0.868	0.871

Note: Unstandardized coefficients; t statistics in parentheses; Prais-Winsten transformation [AR(1) disturbances].
* significant at 0.1; ** significant at 0.05; *** significant at 0.01.
Simple average of real minimum income benefits and minimum income replacement rates of three household types: single persons, lone parents with two children and two parents with two children.

Table B2: Fixed effects results for lone parents, 1990-2009

	Real minimum income benefits for lone parents			Minimum income replacement rates for		
Lisbon Strategy 2000	77.101		48.445	0.788		0.483
	[0.39]		[0.24]	[0.77]		[0.56]
Lisbon Strategy 2005		179.976	171.077		2.141**	2.056**
		[0.73]	[0.66]		[2.23]	[2.12]
Left government (t-1)	4.245***	4.217***	4.216***	0.005	0.005	0.005
	[3.13]	[3.17]	[3.15]	[1.03]	[0.98]	[0.96]
Union density (t-1)	-141.422***	-140.258***	-140.926***	-0.025	-0.037	-0.038
	[-4.91]	[-4.83]	[-4.85]	[-0.28]	[-0.40]	[-0.41]
Unemployment (t-1)	115.682*	114.504*	115.445*	0.368**	0.351**	0.361**
	[1.87]	[1.84]	[1.85]	[2.29]	[2.13]	[2.17]
Deficit (t-1)	-56.645**	-55.633**	-55.601**	-0.124*	-0.124*	-0.121*
	[-2.31]	[-2.30]	[-2.28]	[-1.94]	[-1.92]	[-1.86]
GDP per capita*10^{-3} (t-1)	91.844	92.894	92.918	-0.017	-0.006	-0.005
	[1.46]	[1.47]	[1.47]	[-0.08]	[-0.03]	[-0.02]
Deindustrialization (t-1)	-97.611	-99.439	-98.379	-0.615**	-0.596**	-0.598**
	[-1.09]	[-1.11]	[-1.10]	[-2.52]	[-2.43]	[-2.44]
Trade openness (t-1)	-30.967**	-31.569**	-31.883**	-0.073*	-0.087**	-0.089**
	[-2.01]	[-2.17]	[-2.16]	[-1.72]	[-2.24]	[-2.25]
Capital openness (t-1)	-5.994**	-5.961**	-5.966**	-0.015**	-0.015**	-0.015**
	[-2.33]	[-2.33]	[-2.33]	[-2.43]	[-2.35]	[-2.35]
Electoral system	-501.641	-478.343	-483.64	0.629	0.492	0.534
	[-0.72]	[-0.67]	[-0.68]	[0.20]	[0.16]	[0.17]
Constant	25154.26***	25237.85***	25199.07***	97.778***	97.262***	97.491***
	[3.98]	[3.97]	[3.97]	[4.97]	[4.94]	[4.96]
N	369	369	369	369	369	369
Adj. R^2	0.829	0.827	0.827	0.871	0.877	0.877

Note: Unstandardized coefficients; t statistics in parentheses; Prais-Winsten transformation [AR(1) disturbances].
* significant at 0.1; ** significant at 0.05; *** significant at 0.01.
Simple average of real minimum income benefits and minimum income replacement rates of three household types: single persons, lone parents with two children and two parents with two children.

Table B3: Fixed effects results for two parents, 1990-2009

	Real minimum income benefits for two parents			Minimum income replacement rates for two		
Lisbon Strategy 2000	208.912		43.795	0.744		0.182
	[0.66]		[0.18]	[0.48]		[0.15]
Lisbon Strategy 2005		775.346***	766.515***		4.001***	3.976***
		[2.97]	[2.83]		[3.36]	[3.27]
Left government (t-1)	5.080***	5.012***	5.004***	0.008	0.007	0.007
	[2.64]	[2.67]	[2.66]	[1.08]	[1.04]	[1.04]
Union density (t-1)	-138.511***	-137.708***	-137.875***	0.115	0.109	0.108
	[-3.71]	[-3.68]	[-3.68]	[1.00]	[0.95]	[0.95]
Unemployment (t-1)	50.238	48.664	49.614	0.218	0.19	0.193
	[0.81]	[0.78]	[0.79]	[1.30]	[1.09]	[1.08]
Deficit (t-1)	-94.788***	-91.069***	-90.854***	-0.237***	-0.227***	-0.226***
	[-3.07]	[-2.96]	[-2.95]	[-2.72]	[-2.60]	[-2.58]
GDP per capita*10^{-3} (t-1)	163.966**	167.773**	168.009**	0.034	0.065	0.067
	[2.41]	[2.50]	[2.51]	[0.13]	[0.26]	[0.27]
Deindustrialization (t-1)	0.937	0.968	0.983	-0.547**	-0.513**	-0.512**
	[0.01]	[0.01]	[0.01]	[-2.21]	[-2.09]	[-2.09]
Trade openness (t-1)	-40.009***	-44.231***	-44.449***	-0.101***	-0.128***	-0.129***
	[-3.05]	[-3.54]	[-3.49]	[-2.61]	[-3.55]	[-3.54]
Capital openness (t-1)	-3.960**	-3.838**	-3.839**	-0.010**	-0.010**	-0.010**
	[-2.32]	[-2.26]	[-2.26]	[-2.33]	[-2.16]	[-2.15]
Electoral system	-428.028	-380.286	-377.192	1.747	1.805	1.816
	[-0.59]	[-0.49]	[-0.49]	[0.52]	[0.54]	[0.54]
Constant	21436.93***	21455.92***	21462.67***	104.749***	102.924***	102.929***
	[3.23]	[3.22]	[3.22]	[4.37]	[4.38]	[4.38]
N	369	369	369	369	369	369
Adj. R^2	0.813	0.814	0.813	0.838	0.845	0.845

Note: Unstandardized coefficients; t statistics in parentheses; Prais-Winsten transformation [AR(1) disturbances].
* significant at 0.1; ** significant at 0.05; *** significant at 0.01.
Simple average of real minimum income benefits and minimum income replacement rates of three household types: single persons, lone parents with two children and two parents with two children.

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