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ABSTRACT

The paper seeks to evaluate whether and to what extent the recent global financial crisis and its economic aftermaths had any impact on the dynamics of the European countries' national welfare provisions. Relying on the most recent available data on 16 Western countries, covering the period 1990-2013, the analysis examines the behaviour of per capita levels of total social expenditure and its main functions: old age-survivors-incapacity related, labour and healthcare. The empirical analysis reveals the presence of a strong conditional convergence process of per capita total public social expenditure and that devolved to functions attracting most of the social resources. The 2007 financial crisis did not change the old age-survivors-incapacity and labour policies' convergence trend while it contributed to increase differences among national indicators of total social provision and health sector with the latter presenting a turnaround with respect to the period before the crisis. Healthcare is confirmed to be a less productive sector and therefore the one that most may be cut in presence of resources availability constraints.

Keywords: convergence, social protection, welfare state indicators, European countries, financial crisis

1. Introduction

This study addresses the impact of the 2007 financial crisis on the convergence of welfare policies across European countries. Indeed, up to now the impact of the global financial crises on social protection outcomes has received little attention in the literature, compared to other factors.

The socio-economic changes occurring in developed countries in recent decades been widely investigated (Korpi, Palme, 2003; Montanari, 2001; Tanzi, 2002; Rodrik, 1998; Iversen and Cusack, 2000; Taylor-Gooby, 2004). Most scholars have focused on the effects of the economic slowdowns in the 1970s, the demographic transition, the increase in labour market flexibility, gender equality and higher female labour participation and, finally, on the globalization process leading to a more competitive economic environment. These studies contributed to highlight a new and weaker socio-economic context, with different social risks and priorities that, in the aftermaths of a deep economic and financial crisis, make a far-reaching recalibration of existing welfare policies ever more urgent.

There is a broad consensus in the literature on the role played by the economic crisis in the development of welfare systems. In general, the crisis has been acknowledged to be a crucial breaking point that gives policymakers the strength to divert from their original path and initiate a radical reform process (Vis et al., 2011; Palier, 2010). In "normal" times, indeed, institutional and political forces work against substantial reforms that may question pre-existing rights and privileges and, therefore, would damage in some way their supporters. By contrast, when socio-economic difficulties undermining certainties about future stability that are widespread and perceived as systemic, heavy retrenchment and radical restructuring of welfare programmes appear to be more acceptable and even desirable (Béland and Cox, 2010; Hemmerijck *et al.*, 2009; Kuipers, 2006; Stiller, 2010).

The recent global financial crisis, considered as one of the most severe crises of the last century, made most European governments resort to large rescue packages to bail out the financial sector. This had considerable effect on public budgets leading them to worrying increases in deficits. The financial turmoil turned rapidly into an economic crisis and governments' attempts to sustain aggregate demand put additional pressure also on "social insurance" balances (Thalassinos and Politis 2011).

These events led the European Commission to ask Member States to adopt political decision to reduce deficit and debt ratios, to increase employment rates and resume welfare reforms. In particular, to avoid asymmetries in terms of social policies outcomes (Hemerijck and Vandenbroucke, 2012), caused by the lack of a common vision on the goals of a public social support, European institutions expressed the need to achieve a European Social Model (ESM). The main aim of the ESM would be to 'bind Europe together', ensuring that citizens of each Member State feel themselves equally protected, regardless of their country of residence. The revision of welfare objectives and tools would have meant starting with different economic and social contexts and ending up with a situation in which citizens, wherever they live, perceive the same degree of assistance from the state. To this end, European policymakers had at their disposal the tools provided by the Open Method of Coordination. It was a primary mechanism of coordination already employed as part of the European Employment Strategy (EES), in the field of labour market policies, and as a primary instrument in the 2000 Lisbon Strategy, in the fields of poverty, social exclusion, pensions and health care.

That said, this paper seeks to evaluate whether and to what extent the recent global financial crisis and its economic aftermaths contributed to achieving some convergence across European countries' national welfare provisions. Relying on available data on 16 Western countries, covering the period 1990-2013, the analysis examines in particular the behaviour of per capita levels of total social expenditure and its main functions. We consider pension, labour and healthcare policy provisions because, taken together, they attract most of the financial resources devoted to social policy and show a larger responsiveness in the turning points of cyclical phases. The analysis seeks to test whether, after controlling for the specific contribution of internal and external conditional factors, the financial crisis played a role in the convergence process of per capita social spending indicators.

The results reveal the presence of a strong conditional convergence process across European countries which concerned all types of social expenditure. The outbreak of the 2007 financial crisis did not affect OSI and labor policies' convergence trend while it contributed to differentiate the national indicators of total social provision and of health sector. This outcome may be explained by the minor role that health expenditure plays in supporting demand and economic activity levels comparing to other social sectors. For this, it represents the sector that can be most affected by cuts in the case of a contraction of resources availability. Health spending began to diverge after the crisis as national economies were hit differently and governments were asked to reorganize the offer of health services according to their own differentiated economic difficulties.

The rest of the study is structured as follows: section two presents the theoretical framework concerning welfare policies in times of crisis and the possible effects of the financial crisis on welfare programme convergence; section three describes the methodology, the dataset and the findings from the descriptive analysis; section four presents the econometric results and section five concludes.

2. Theoretical framework

Changes in welfare provision in Europe have been widely investigated in the comparative welfare state literature. Above all, European economic integration very recently raised interest in understanding how social protection benefits have changed for each EU Member State. However, up to now, analyses investigating the impact of the 2007 financial crisis on European social spending dynamics are scarce or mainly descriptive.

2.1 Welfare policies in times of crisis

What happens to welfare policies in general after a crisis? The literature states that the evolution of welfare programmes most depends on the possibility of a breaking event like an economic crisis turning into a recession (Stark *et al.*, 2014; Vis *et al.*, 2011; Palier, 2010). Usually, following the classical Keynesian intervention strategy, immediately after a crisis, governments are induced to increase resources allocated to welfare policies in order to support the demand sector (Vis *et al.,* 2011; Hermann, 2014). This choice, however, generates considerable stress on public budgets and, when a crisis spreads to the labour market, it contributes to undermining the sustainability of social budgets. Indeed, while the greater incidence of social risks and needs does increase social expenditure, there is a reduction in contribution revenues due to lower economic growth, rises in unemployment and smaller wage increases, which drastically limits the availability of resources. Finally, in the event of a prolonged recession, governments are usually forced to correct deficits and debt ratios by introducing austerity measures, which consist in public spending cuts and/or increases in taxes and contributions (Bonnet et al., 2010; Busch, 2010).

The recent global financial crisis of 2007 started as an acute crisis hitting the banking system and later quickly affected the real economy, causing a substantial slump in business investment, household demand and aggregate production. As a first consequence, the governments of most industrialised countries devoted resources to supporting or bailing out banks in an attempt to avoid the collapse of the financial and industrial sectors and prevent a massive drop in domestic demand. These interventions exerted even more pressure on public budgets. Despite such efforts, the financial crisis caused an economic downturn that turned into recession, with negative social and economic consequences. The expansion of social programmes applied new pressure on the sustainability of the pre-crisis social schemes that were already made vulnerable by aging populations, structural changes in the labour market and an increase in female labour market participation that affected the family's very stability.

The increase in social spending together with the strong reduction in taxation revenues and the contamination of sovereign debt by toxic financial sector assets generated broad agreement on the need to consolidate countries' public budgets by adopting appropriate austerity measures (Busch, 2010; Diamond and Lodge, 2013; Hermann, 2014).

Social spending reform appears to be one of the main aims of austerity programmes. The majority of countries have reviewed their welfare schemes, modifying social benefits differently, according to their own inherent conflict between long-term financial sustainability concerns and the counter-cyclical role of welfare spending (Bonnet *et al.*, 2010).

While substantial differences are in general expected when comparing different countries, adjustments in welfare goals in a given countries usually follow change of political orientation due to the alternation of different political parties or the existence of a two-way relationship between policy and public opinion (Brooks and Manza, 2006; Christian, 2008; Kenworthy, 2009; Blekesaune and Quadagno, 2003; Jaeger, 2009). Vis *et al.* (2011), in particular, focusing on a sample of countries with different welfare regimes, found that after the recent financial crisis this two-way relationship has worked against rather than opened up opportunities for welfare provision retrenchments. Diamond and Lodge (2013), instead, demonstrated that even in the aftermath of a crisis, it resulted very hard to reshape welfare states because of the large inequality in electoral participation found in the majority of advanced democracies. Indeed, the decline in voter participation among the young and the poorest favoured the influence of older voters in the political process, making pension and welfare payments to the elderly almost untouchable.

As regards the differences in policy decisions due to the political composition of governments (Hicks, 1999, Huber and Stephens, 2001, Castles, 1982), Social Democratic parties are usually more likely to favour an expansion of welfare generosity during economic crises with respect to Liberals (Ahrend *et al.*, 2011). Stark *et al.* (2014), finally, found that the influence of parties in shaping responses to the blow of a crisis depends on pre-existing welfare state configurations. Political ideologies may play a role in less generous welfare states while, in more generous welfare states, with the predominance of automatic stabilizers, there is a cross-party consensus concerning the overall direction of social policy changes.

2.2 The financial crisis in the European context

The 2007 global financial crisis contributed to worsen the already precarious conditions of most European countries' public balances. In particular, countries facing serious insolvency problems were allowed to rely on external funds to avoid state bankruptcy, in line with an agreement signed with the European institutions (the European Commission, European Central Bank, European Parliament and the International Monetary Fund). These countries were forced to follow austerity policies aimed at reducing their deficit spending (Busch, 2010; Bieling, 2011; European Commission, 2012a). However, the pressure from the European Commission (EC) to reduce public expenditure was large even for the healthiest countries. As stated by OECD (2012), the overall scale of consolidation measures adopted after the crisis was undoubtedly the most onerous and extensive in Europe since World War II.

The dictates by supranational institutions helped national governments to overcome the resistance to implement the necessary unpopular reforms in the field of social provision. In addition, the presence of common problems (public debt, the unemployment rate, competition due to wage differentials and banking sector stability) and a widespread neoliberal political ideology were able to play a crucial role in steering European countries along a path leading to the convergence of welfare states.

What may have contributed to the convergence is the greater competition due to economic globalisation. In particular, the intention to gain competitiveness may have led to a reduction of the amount of resources devoted to welfare policies, in favour of more productive sectors (Montanari, 2001; Tanzi, 2002), pushing countries towards a downward convergence (Busemeyer, 2009; Garrett and Mitchell, 2001).

Other factors enhancing convergence in European social policies are the learning processes driven by the Open Method of Coordination (Mosher and Trubek, 2003; Trubek and Trubek, 2005) and the legal harmonisation, above all in the case of EMU member states. This harmonisation is achieved through a positive as well as a negative integration (Scharpf, 1998). The former refers to the incorporation of common rules and directives on different aspects of social policy into the national legal framework (Knill and Lehmkull, 1999). Negative integration, instead, refers to the removal of barriers to competition, facilitating the development of the Common Market (Leibfried and Pierson, 1995). This harmonisation enables institutional stickiness to be overcome, acknowledged by the literature (Pierson, 2001; Starke et al., 2008) as one of the main causes of persistence of divergence among countries' social policies even when they face similar challenges.

Finally, the presence of differences in wages, social costs and tax burdens may increase the risk of social dumping and the need for political institutions to limit it by means of proper rules for of competition. To achieve this result, even a general agreement on minimum corporate tax rates, minimum wages and welfare provision goals at supranational level (Busch, 2010) may have the effect of enhancing the convergence of social policy outcomes.

3. Methodology and data

3.1 Methodology

This study investigates the impact of the recent financial crisis on the convergence dynamics of welfare state programmes in Western Europe countries. More precisely, following the hypothesis that steady-state levels of welfare provision are strongly influenced by countries' specific characteristics (Alsasua et al., 2007; Attia and Berenger, 2007; Caminada et al., 2010; Paetzold, 2013; Schmitt and Starke, 2011; Starke et al., 2008), we estimate a conditional convergence model following an appropriate panel data approach. The dataset includes 16 countries, namely Austria, Belgium, Denmark, Finland, France, Ireland, Italy, Germany, Greece, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, and covers the period 1990-2013.

The empirical model we estimate is the following:

$$\Delta SP_{i,t} = \alpha_i + \beta_1 SP_{i,t-1} + \beta_2 DFC + \beta_3 DFC * SP_{i,t-1} + \beta_4 EMU_{i,t} + \gamma_k \pi_{i,t} + \varepsilon_{i,t} \quad \textit{with } k=1, \ldots 9 \qquad (1)$$

where $\Delta SP_{i,t}$ indicates the annual growth of the social provision indicator of country i (with i=1,…,16), at time t (with t=1, …, 24). $SP_{i,t-1}$ is the lagged value of the social indicator and the coefficient β_1, depending on its sign, reveals the presence of convergence (if negative) or divergence (if positive) among countries' welfare provisions. Two are our variables of interest. The first is a binary dummy variable D*FC*, equal to 1 from 2007 onwards and zero otherwise, that enables us to determine whether and to what extent the global financial crisis has modified the trend of individual countries' social provision indicators. The second variable is given by the interaction term $DFC*SP_{t-1}$ which captures the impact of the crisis on the convergence process of social expenditures. In particular, if the interaction term coefficient (β_3) is statistically significant, it may either reinforce the convergence process, when negative, or weaken it, when positive. The variable EMU is a binary dummy variable that is equal to 1 if the country i in the year t is an EMU member state and zero otherwise The vector $\boldsymbol{\pi}_{i,t}$ includes a parsimonious set of variables controlling for demographic, economic and institutional factors suggested by the reference literature. Finally, specific time-invariant characteristics and structural differences are captured by country-fixed effects α_i.

The use of panel data might present problems of non-stationarity that could increase the probability of undermining the validity of hypothesis tests on the regression parameters or, on the other hand, ending up with an infinite persistence of shock effects. To control for this potential source of bias, we run different unit root tests, namely Levin et al. (2002), Im et al. (2003), ADF Fisher $\chi 2$ and Fisher-PP tests defined by Maddala and Wu (1999), where the null hypothesis is 'non-stationarity' of data. The results of unit root test indicate whether or not, for the explanatory variables included in our empirical model, data need to be differentiated to make them stationary[1].

3.2 Data and descriptive statistics

Following the relevant empirical literature, comparative analyses of welfare programmes usually select social provision indicators on the base of their ability to represent the national welfare scheme. Since this study assesses the impact of the financial crisis on welfare convergence over a limited interval of time (less than ten years after the start of the crisis), we made our choice by looking at the relative size of the social indicator and its responsiveness to the policy changes introduced to combat

[1] The results of the unit root tests are available on request.

the aftermath of the crisis itself. On the base of this criterion, we took the per capita public expenditure on overall social services in cash and in kind and the per capita amount of resources allocated to the main welfare functions. In particular, among all functions, we selected the categories attracting most of the financial resources devoted to social policy. To this end, figure 1 gives an idea of the average distribution of social expenditure throughout the sample among different functions in 1990 and 2013. Old age, Survivors, and Incapacity-related (OSI), Health and Labour policies are the most important categories of social spending and, together, they cover about 90% of the total amount of resources available for each citizen in a given country. Data on social expenditure are taken from the OECD Social Expenditure Database (SOCX).

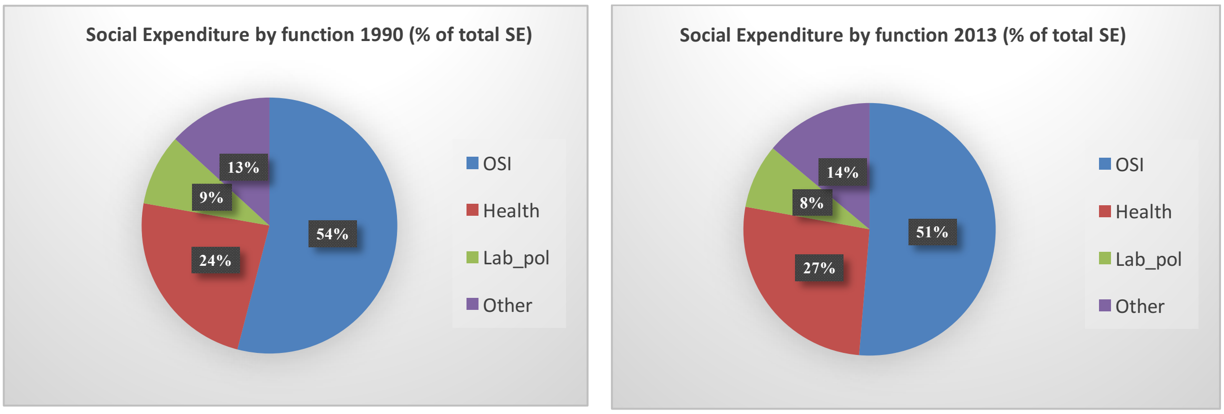

Figure 1. Sample average of per capita social expenditure by function in 1990 and 2013 (our elaboration on OECD-SOCX data)

The literature presents other measures of social provision, such as pension and unemployment replacement rates, particularly helpful in measuring the social policy effort in terms of individual level of social benefits. Nevertheless, these indicators may have some limitations (Otto, 2017; Schmitt and Starke, 2011). They identify the average benefit level calculated on the base of average net wages and are thus strongly influenced by fiscal reforms and wage agreements. Moreover, these indicators do not properly account for other major benefits like housing subsidies and health care. In any case, it would be implausible to expect that well-entrenched programmes like pension or unemployment schemes could be rapidly adapted in response to a crisis. Hence, this type of indicator would not be particularly helpful in our analysis. Similarly, the use of aggregate levels of social expenditure in comparative and convergence studies may present some shortcomings. In particular, it would not allow us to distinguish whether an increase in the indicator would be due to a larger number of beneficiaries (ageing population in the presence of demographic changes or higher unemployment rates during recessions) rather than to changes in policy choices.

To account for these critical issues, we employ social indicators defined in terms of per capita expenditure. Secondly, different demographic, economic and institutional controls are included in the empirical model to eliminate potential biases (Kühner, 2007). Demographic factors are accounted by the old dependency ratio (*old_dep*), i.e. the ratio of the population older than 64 to the working-age population (those aged 15-64), and the crude birth rate (*Crude_birth_rate*). These factors may drive changes in social expenditure for pension, health and education services for children and young people. More precisely, an increase in the old dependency ratio would favour social provision for pension and health services, while a higher birth rate would increase resources allocated to health, family and short-term educational programmes. The pressure on policymaker to increase social spending, especially for family needs like childcare and eldercare, increase also when there are higher levels of female participation in the labour force (*femalpart*) (Ennser-Jedenastik, 2017; Andreotti et al. 2013). A larger entry of women into paid work may cause a weakening of the “male breadwinner” model leading so to a more homogeneous social configuration across European countries that start from a very different gender division of tasks both inside and outside the family (Esping-Andersen, 2009).

Among the economic controls, we include the GDP growth rate (*tx-Gdp*) which, by improving social well-being, favours a reduction in the demand for resources devoted to social functions. Completely different could be the behaviour of healthcare spending. In this case, an increase of wealth should lead to a rise in the demand for health goods and services due to the greater attention of individuals for their own health. An increase of the unemployment rate (*tx_unemp*), instead, requires a higher disbursement in different social spending functions (labor, health, family and housing). The international openness is captured by the trade openness (t*rade_open*), that is the sum of imports and exports in terms of GDP, and an index of restrictions on cross border capital transactions (*kaopen*) ranging between 0 (minimal openness) and 1 (maximal openness). The latter two indicators, in a context of higher globalization, enable to measure the exposure of a country to external risks and to interpret the government responses in the light of the efficiency vs. compensation views in the theoretical debate. The efficiency hypothesis implies a strong reduction of social spending in order to strengthen a more productive use of public resources and gain in terms of competitiveness. The compensation hypothesis (Avelino et al., 2005), instead, states that governments act to protect domestic interests and mitigate the inequality associated with openness through the strengthening of mechanisms for social insurance (social security, pensions, unemployment insurance).

Finally, we include some controls for institutional features of European countries that, above all for EMU member states, appear to be particularly conditioning. The recent changes in fiscal governance at the EU level, for EMU countries in particular, left little space for a completely independent decision-making process so that accounting for this membership is essential (*EMU*). Supranational limits result to be added to those already existing at national level in terms of rationalization of public balances. To this end, we include government debt in the percentage of GDP (*debtgdp*) and we expect that, in the perspective of public spending tightening, and increase in public debt drives to an even larger restriction of social expenditures, in general acknowledged as unproductive. To conclude, we include a control for the left wing party (*govleft1*), to account for the tendency of Social democratic parties to favour an expansion of welfare spending during economic crises with respect to right wing parties (Ahrend *et al.*, 2011). Left wing parties show strong political preferences for labour policies, probably due to their origin in the 19th century from the labour movement. Adams *et al*. (2009), in particular, explain the restrictions they usually show in ideological flexibility with the strong link they keep with trade unions and social movements (Kitschelt,1994; Piazza, 2001, Bremer, 2018).

At the end of this paragraph, we present the results of a brief descriptive analysis of the social provision highlighting the differences between countries. Altogether, the 16 European countries show increasing annual average values of the four indicators throughout the interval period (Figure 2). The financial crisis, occurred in 2007, does not seem to have had a noticeable effect on the upward trend of social provisions, with the sole exception represented by the per capita amount of resources allocated to labour policies. This evidence may be explained by the introduction of measures aimed at managing new socio-economic risks, driven by the dramatic pressures in particular on the labour market.

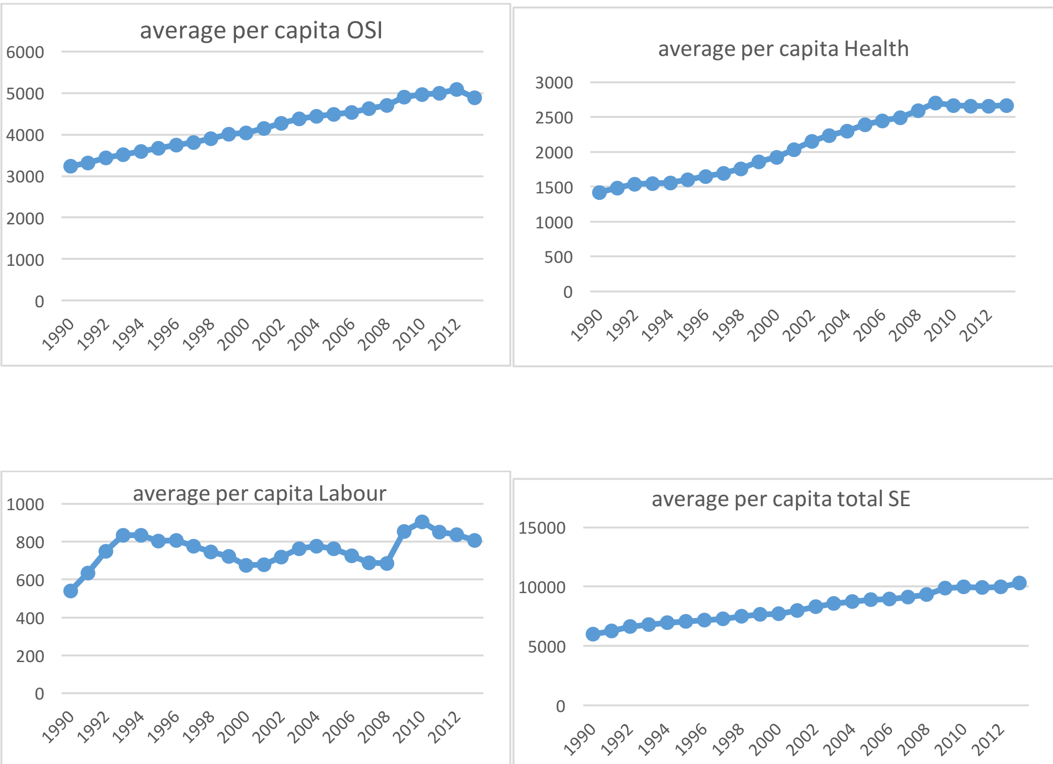

Figure 2. Average annual social indicators for the 16 European countries

Data in Table 1 enable to focus on changes at country level. The general increase in per capita social benefits from 1990 to 2013 shows greater generosity for Portugal, Ireland, Greece and the United Kingdom and less for the Netherlands, Germany, Sweden and Norway. The increase in the share of total social spending allocated to OSI is higher in Portugal, Ireland Greece and Finland and lower in the Netherlands, Germany, Norway and Sweden. The distribution of social resources devoted to health benefits increases most in Ireland, the United Kingdom, Switzerland and Greece, and less in Italy, Finland, Sweden and Belgium. Finally, labour policy absorption of social resources rises most in Switzerland, Portugal, Denmark and Italy while it even decreases in some countries like the UK, Norway and the Netherlands. Therefore, the suggestion is that countries have increased public social spending, to limit the consequences of the financial crisis on individuals and families, by means of automatic stabilizers and discretionary measures aimed at reinforcing social benefits.

Table1. Changes in per capita total and sectoral social expenditures in the period 1990-2013

Country	SE	OSI	Health	Labor
Austria	68.14	63.81	84.06	102.47
Belgium	60.81	55.83	69.84	35.93
Denmark	70.12	59.51	93.79	217.52
Finland	72.46	83.09	40.30	110.96
France	63.76	60.37	79.73	34.26
Germany	40.91	29.51	59.33	22.32
Greece*	111.26	104.55	126.49	175.07
Ireland	159.78	135.16	187.94	136.81
Italy	51.21	48.73	30.24	188.14
Netherlands	33.90	4.60	118.69	-3.04
Norway	48.06	40.62	109.82	-35.50
Portugal	165.65	183.52	115.32	253.63
Spain	79.67	88.66	74.92	27.59
Sweden	41.32	43.01	59.50	7.94
Switzerland	88.78	51.61	134.57	423.16
United Kingdom	103.07	79.03	138.86	-35.96
16 European countries	**78.68**	**70.73**	**95.21**	**103.83**

* Data for Greece are referred to years 1990-2012.

When looking at the years immediately after the crisis, data confirm this hypothesis. Analysis of per capita social indicators annual growth rates reveals a temporary increase in total social spending and the other main functions with the only exception of health spending (Table 2: a, b, c and d). This may be explained by the role played by social policies in supporting and preventing risks that are particularly burdensome in times of crisis. The increase in expenditure on labour policies was particularly large (5.41% on average) especially in Nordic and Continental countries, where higher unemployment protection most likely was implemented through the automatic stabilizers.

Average resources devoted to pension provision increased after the crisis to mitigate the potential social risks caused by the recession. Rises in pension spending may occur in spite of the negative economic situation undermining the financial sustainability of pension schemes. European governments have made an effort to tackle the sustainability problem through reforms that might take effect, however, only in the medium or long term (well beyond the considered period).

Health spending shrank between 2009 and 2010. This is the only function in which the cut in resources, introduced through annual healthcare plans, showed any effect in the short term.

Table 2a. Annual growth in per capita total social spending

Country	*2009/2010*	*2010/2011*	*2011/2012*	*2012/2013*
Austria	1.88	-0.39	1.77	1.04
Belgium	0.71	2.50	0.42	0.59
Denmark	3.38	0.45	-0.28	-0.26
Finland	4.34	1.00	2.71	2.57
France	1.87	0.93	1.56	1.71
Germany	1.42	-1.37	-0.19	0.82
Greece	-5.17	-1.00	0.71	
Ireland	0.95	-4.24	-0.17	-2.40
Italy	1.00	-0.87	-0.59	-0.42
Netherlands	3.37	0.66	1.01	0.83
Norway	-2.29	-2.64	1.06	1.77
Portugal	1.44	-2.15	-3.00	3.34
Spain	1.42	0.39	-3.42	-0.63
Sweden	-0.18	0.01	2.52	2.95
Switzerland	0.96	0.45	2.57	2.84
United Kingdom	-0.01	-0.59	1.04	-1.15
Average	**0.94**	**-0.43**	**0.48**	**0.91**

Table 2b. Annual growth in per capita OSI spending

Country	*2009/2010*	*2010/2011*	*2011/2012*	*2012/2013*
Austria	2.52	0.99	2.11	1.26
Belgium	1.14	3.11	1.04	2.90
Denmark	1.51	1.12	0.58	0.21
Finland	4.48	1.73	3.13	2.68
France	1.97	2.64	1.86	1.70
Germany	1.46	-0.06	0.57	-0.26
Greece	-1.19	-0.60	9.31	
Ireland	4.07	-1.16	0.90	-1.33
Italy	2.22	-0.23	-0.20	0.19
Netherlands	4.42	1.77	0.92	1.82
Norway	-3.95	-2.01	2.30	2.69
Portugal	2.24	3.05	-2.52	6.50
Spain	4.33	2.06	-0.20	2.97
Sweden	-2.03	-1.14	2.71	3.20
Switzerland	0.06	2.23	0.63	0.90
United Kingdom	-0.08	0.91	2.18	-0.20
Average	**1.45**	**0.90**	**1.58**	**1.68**

Table2c. Annual growth in per capita Labor spending

Country	*2009/2010*	*2010/2011*	*2011/2012*	*2012/2013*
Austria	-1.37	-7.94	0.17	6.54
Belgium	1.30	1.86	-2.40	-6.95
Denmark	26.70	-0.45	-5.57	-2.07
Finland	9.27	-8.91	1.49	7.24
France	8.85	-9.42	1.32	1.86
Germany	-5.58	-16.66	-10.05	-0.73
Greece	9.07	13.31	-7.94	
Ireland	23.18	-6.80	-2.57	-6.49
Italy	-2.75	1.09	4.81	0.80
Netherlands	6.04	-5.78	3.90	-3.34
Norway	8.88	-12.88	-8.67	-3.44
Portugal	1.45	-8.51	10.64	3.03
Spain	-2.66	2.31	-9.90	-6.37
Sweden	9.46	-3.95	8.65	5.71
Switzerland	4.55	-20.78	1.54	8.82
United Kingdom	-9.89	-17.54	-0.98	-12.65
Average	**5.41**	**-6.32**	**-0.97**	**-0.54**

Table 2d. Annual growth in per capita Health spending

Country	2009/2010	2010/2011	2011/2012	2012/2013
Austria	0.79	0.42	2.48	-0.55
Belgium	-0.27	2.27	1.29	0.50
Denmark	-0.46	-0.55	0.97	-1.29
Finland	2.52	3.17	2.23	1.52
France	0.55	1.41	0.86	1.51
Germany	2.78	0.57	0.68	2.29
Greece	-13.46	-2.17	-12.49	-5.73
Ireland	-12.45	-5.86	1.69	0.90
Italy	1.19	-2.96	-3.16	-2.29
Netherlands	2.39	-0.10	3.76	-0.75
Norway	-1.94	-2.71	1.87	0.90
Portugal	0.58	-7.84	-8.06	-1.94
Spain	-0.83	-1.84	-5.03	-3.92
Sweden	-0.40	2.47	0.65	1.69
Switzerland	0.83	2.79	5.03	4.26
United Kingdom	-1.65	-1.58	-0.49	0.56
Average	**-1.24**	**-0.78**	**-0.48**	**-0.15**

The data in Table 2 clearly indicate that both health and labour expenditures on average diminished after the global financial and economic crisis (from 2010 onwards). In particular, Greece, Italy and Portugal show a large reduction in per capita health spending in 2013. The drop was extremely dramatic for Greece immediately after the crisis, amounting to -13.5% in 2010 and -12.5% in 2013. As regards Portugal and Italy, they showed tightening health spending for three consecutive years. Austria and the Netherlands posted real-term drops in health spending for the first time in 2013.

4. Results

Empirical results showed in Table 3 reveal the presence of a strong conditional convergence for all the social indicators. Indeed, the corresponding coefficients, the *βs,* are always negative and highly statistically significant (at the 1% level of significance) which testifies the presence of a convergence process.

The binary dummy variable *DFC* enables to verify whether and to what extent the global financial crisis has modified the trend of individual countries' social provision. Estimation results show that the crisis played an important and statistically significant role only on per capita healthcare spending. A possible explanation is the fact that, during and after the crisis, countries faced an objective difficulty in keeping constant the amount of resources devolved to social issues and, among them, healthcare may be considered as the one that supports the aggregate demand less than others. As a consequence, it results the most suitable for cuts in the case of resource scarcity making so more difficult to plan investments and provide goods and services in the health sector. This outcome is in line with the previous literature that acknowledged the global financial crisis as also a health system shock (Mladovsky *et al.*, 2012). No significant effects can be found of the crisis on the annual growth for the remaining social indicators.

The interaction term captures the impact of the global financial crisis on the social provision convergence process. The crisis appears to have undermined the convergence processes of total social spending and health spending while it had no effects on OSI and labor. This could be due to the presence of major constraints imposed by the European Union’s social policy, aimed at promoting employment, adequate social protection and in doing so mitigating problems of exclusion. On one hand, in fact, the European Employment Strategy in 1997 and the Lisbon Strategy in 2000 were aimed at overcome the critical issues of labor market. On the other hand, the EC with the Green Paper on pensions (EC, 2010) pointed out the importance on a common concern about pension systems sustainability already endangered by the ongoing European demographic trends. In this regard, the main suggestion was to start building up safe complementary retirement savings to prevent public balances risky conditions due, in particular, to the retirement of the so called "baby-boomers" and the shrink of working age population. The European Parliament, the European Economic and Social Committee and the Committee of the Regions took part to the debate asking for a comprehensive and coordinated strategy developed at the EU level. The EC response came through the publication of the White Paper '*An Agenda for Adequate, Safe and Sustainable Pensions*' (EC, 2012b) aimed at suggesting forward policy orientation to support national policymakers in their effort to address reform needs.

In truth, estimation results reveal that European Union membership, controlled by the dummy variable *EMU*, plays a decisive role for the overall social spending sectors. Coefficients for all the models are highly significant and positive with the exception of labour policy spending. This positive relationship is probably due to a stronger coordination of social policy by national institutions of EMU members. The EU social policy framework highlights three different concerns. From a social point of view, all countries should accept the responsibility for the social needs of their citizens and agree with the idea of a common European Social Model (ESM). Second, from an economic perspective, countries have to promote competition and avoid distortions due to differences in social conditions caused by discrimination concerning education and labour mobility. Finally, the political concern refers to the presence of an EU active social policy as a *conditio sine qua non* to obtain citizens' consensus on the political and economic integration (Bonasia and De Siano, 2017).

Another major result of this study concerns the role played by demographic, economic and institutional factors. When statistically significant, these control variables usually have the expected signs. This is the case of the GDP annual growth rate, which shows a negative effect on social indicators, meaning that an improvement in social well-being conditions may favour a contraction of resources devoted to per capita social benefits. Likewise, an increase in the unemployment rate has a positive and highly significant impact on the per capita disbursements arranged by labour policies (2.281). A rise in the crude birth rate increases significantly, as expected, total social expenditure and labour spending. Particularly interesting is the evidence on left wing parties influence, which is positive and significant only in the model for the labour policy expenditure. This result confirms the tendency of Social democratic parties to protect the unemployed.

What requires a deepening is the presence of unexpected effects which conflict with previous findings. First, the negative impact of unemployment on health spending (-0.863) could be attributed primarily to budgetary problems: the increase in unemployment causes a reduction in health insurance contributions and hence cuts and/or reorganizations of resources available for heath policies. Confirming this hypothesis, a report of OECD Health Statistics (OECD, 2015) underlines that *"…the need to reduce public deficits in some countries has resulted in a shift to private sources of financing via changes to entitlement, amendments to the benefits package and the introduction/extension of user charges*". Secondly, the negative impact of a larger female labor force participation on total social spending and on pension and labour provisions policy spending. The higher is women participation in the labour force the less the strength by government in sustaining both individuals and families and, hence the amount of resources employed for poverty reduction, income maintenance, employment enforcement and gender equality (Gehringer *et al.*, 2014). Finally, the absence of statistically significant impact of old age dependency ratio on OSI may be explained, in a context of legal harmonisation, as the consequence of EU general warnings to national governments to maintain an adequate standard of living and to promote private supplementary pension schemes (EC, 2012b).

Table 3. Panel data estimation results

VARIABLES	(1) Tot_Soc_exp	(2) OSI	(3) Labour	(4) Health
L.SP	-0.00174***	-0.00296***	-0.0234***	-0.00433***
	(0.000242)	(0.000451)	(0.00369)	(0.00113)
DFC	-2.663	0.795	-0.0446	-8.681***
	(1.802)	(1.387)	(3.305)	(3.054)
DFC*SP	0.000400**	9.33e-05	0.000626	0.00335***
	(0.000179)	(0.000270)	(0.00365)	(0.00118)
DIFF_debtgdp	0.000522	0.00445	0.00444	-0.0110*
	(0.00341)	(0.00325)	(0.0138)	(0.00579)
DIFF_tx_unemp	0.142	0.0573	2.281***	-0.863***
	(0.167)	(0.158)	(0.673)	(0.285)
tx_Gdp	-0.257***	-0.180**	-0.943**	-0.307*
	(0.0925)	(0.0890)	(0.375)	(0.158)
Crude_birth_rate	0.527**	0.0857	4.000***	-0.344
	(0.217)	(0.212)	(0.880)	(0.370)
trade_open	0.000660	0.00563	-0.191**	-0.00525
	(0.0194)	(0.0177)	(0.0782)	(0.0325)
old_dep	-0.0701	-0.0585	0.566	-0.415**
	(0.112)	(0.108)	(0.465)	(0.196)
govleft1	0.00267	0.000872	0.0398**	-0.00471
	(0.00417)	(0.00400)	(0.0171)	(0.00708)
DIFF_femalpart	-0.441**	-0.429**	-3.053***	0.683**
	(0.182)	(0.174)	(0.739)	(0.311)
kaopen	1.154	2.704*	-8.454	-0.235
	(1.445)	(1.414)	(5.328)	(2.428)
EMU	2.659***	1.896***	3.337	4.062***
	(0.560)	(0.530)	(2.209)	(0.983)
Constant	10.21**	11.31**	-14.91	25.13***
	(4.755)	(4.561)	(19.03)	(8.212)
Observations	362	362	362	363
R-squared	0.283	0.184	0.415	0.204
Number of Country	16	16	16	16

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

5. Conclusions

This study analysed the impact of the 2007 global financial crisis on European countries' national welfare provisions in order to verify whether it may have had any influence on their convergence process.

European welfare states have a high degree of institutional diversity due to political, historical and economic antecedents, and belong to different welfare regimes, in terms of structure, types of risks and needs covered and provision of resources. At the same time, they share the same difficulties in terms of unemployment and aging population. This common stimulus may have prompted policymakers to identify similar strategies in response to similar problems (Adelantado and Calderón Cuevas, 2006). In light of these considerations, the paper sought to answer the following questions. By controlling for individual country demographic, economic and institutional characteristics, do European countries converge in terms of welfare policy provisions? Did the financial crisis contribute to reinforce or to weaken this process with regard to total social expenditure and its main functions.

The empirical analysis revealed the presence of a strong conditional convergence process for total public social expenditure and all the functions attracting most of the social resources, namely OSI, health and labour policies. However, our main outcome concerns the evidence that the onset of the financial crisis did not change neither OSI and labour policies' convergence trend while it contributed to differentiate the national indicators for the total social provision and the health expenditure, both displaying a turnaround with respect to the period before the crisis. Changes in spending programmes introduced in the 1990s in the field of pensions and labour policies managed to stem the negative aftermaths of the economic crisis by lending substantial support to domestic aggregate demand. By contrast, different approaches to healthcare spending were found among European countries. The economic literature, in this regard, argues that health spending is the one that can be most affected by cuts in the perspective of reducing unproductive expenses in presence of a contraction of resources availability. The increase in health spending heterogeneity strategies, therefore, may be explained by differences in economic pressures and in national governments' reactions in terms of budget resources reallocations and/or sensitivities to public assistance in times of crisis.

The absence of any significant impact of the financial crisis on the convergence process of labour and pension function indicators, instead, could be explained by the presence of a severe constraint imposed by the European Union's social policy supporting employment and an adequate social protection level aimed at combating social exclusion. Indeed, in 2000 both the Lisbon Strategy and the EU Social Inclusion Strategy agreed to achieve the goal of poverty eradication following the Open Method of Coordination. To reinforce these intentions, the Lisbon treaty of 2009 and the more recent

Europe 2020 strategy included a "social clause" whereby the above social issues must be taken into account when defining and implementing whichever policy.

References

Adams, J., Haupt, A. B., & Stoll, H. (2009). What Moves Parties? The Role of Public Opinion and Global Economic Conditions in Western Europe. *Comparative Political Studies*, 42(5), 611–639.

Adelantado, J., & Calderón, Cuevas, E. (2006). Globalization and the Welfare State: The Same Strategies for Similar Problems? *Journal of European Social Policy*, 16(4), 374-386.

Ahrend, R., Arnold, J., & Moeser, C. (2011). The Sharing of Macroeconomic Risk: Who Loses (and Gains) from Macroeconomic Shocks. *OECD Economics Department Working Papers* 877. Paris: OECD Publishing.

Alsasua, J., Bilbao-Ubillos, J. & Olaskoaga, J. (2007). The EU Integration Process and the Convergence of Social Protection Benefits at National Level. *International Journal of Social Welfare*, 16(4), 297–306.

Andreotti, A., Mingione, E., & Pratschke, J. (2013). Female employment and the economic crisis: Social change in Northern and Southern Italy. *European Societies*, 15(4), 617-635.

Attia, N. & Berenger, V. (2007). Social protection Convergence in the European Union: impact of Maastricht Treaty. *Panoeconomicus*, 4(4), 469-87.

Avelino, G., Brown, D., & Hunter, W. (2005). The Effects of Capital Mobility, Trade Openness, and Democracy on Social Spending in Latin America, 1980-1999. *American Journal of Political Science* 49(3), 625-41.

Béland, D. & Cox, R. H. (eds) (2010*). Ideas and Politics in Social Science Research*. Oxford: Oxford University Press.

Bieling, H.J. (2011). Vom Krisenmanagement zur neuen Konsolidierungsagenda der EU. *Prokla*, 41(2), 173–94.

Blekesaune, M. & Quadagno, J. (2003). Public Attitudes toward Welfare State Policies: A Comparative Analysis of 24 Nations. *European Sociological Review*, 19(5), 415-427.

Bonasia, M. & De Siano, R. (2017). Convergence of welfare provision in Europe: An assessment of the Monetary Integration effects. *CRISEI Discussion Paper* n.07, ISSN: 2280-9767.

Bonnet, F., Ehmke, E. & Hagemejer, K. (2010). Social security in times of crisis. *International Social Security Review*, 63, 47–70.

Bremer, B. (2018). The missing left? Economic crisis and the programmatic response of social democratic parties in Europe. *Party Politics*, vol. 24(1), 23–38.

Brooks, C. & Manza, J. (2006). Why do Welfare States Persist? *The Journal of Politics*, 68(4), 816-827.

Busch, K. (2010). World Economic Crisis and the Welfare State, *International Policy Analysis*. Friedrich Ebert Stiftung.

Busemeyer, M. (2009). From Myth to Reality: Globalisation and Public Spending in OECD Countries Revisited. *European Journal of Political Research*, 48 (4), 455–82.

Caminada, K., Goudswaard, K. & Van Vliet, O. (2010). Patterns of Welfare State Indicators in the EU: Is there Convergence? *Journal of Common Market Studies*, 48(3), 529–556.

Castles, F.G. (ed) (1982). *The Impact of Parties: Politics and Policies in Democratic Capitalist States*. London: Sage.

Christian, J.L. (2008). When Does Public Opinion Matter? *Journal of Sociology and Social Welfare*, 35(1), 133-156.

Diamond, P. & Lodge, G. (2013). Welfare States after the Crisis: Changing Public Attitudes. *Policy Network Paper*, www.policy-network.net.

Ennser-Jedenastik, L. (2017). How women's political representation affects spending on family benefits. *Journal of Social Policy*, 46(3), 563-581.

Esping-Andersen, G. (2009). *Incomplete revolution: Adapting welfare states to women's new roles*. Polity.

European Commission, (2010). *Green paper: Towards adequate, sustainable and safe European pension systems.* SEC, 830. Brussels.

European Commission, (2012a). *Employment and social developments in Europe*. Brussels, European Commission.

European Commission, (2012b). *An Agenda for Adequate, Safe and Sustainable Pensions: White Paper*. Publications Office of the European Union.

Garrett, G. & Mitchell, D. (2001). Globalization, government spending and taxation in the OECD. *European Journal of Political Research*, 39(2), 145–177.

Gehringer, A., Klasen, S., & Witkowska, D. (2014). Labour Force Participation and Family Policies in Europe: an Empirical Study. Quantitative Methods in Economics, 15(1), 37-49.

Hemerijck, A., Knapen, B., & van Doorne, E. (2009). *Aftershocks. Economic Crisis and Institutional Choice*. Amsterdam: Amsterdam University Press.

Hemerijck, A.C. & Vandenbroucke, F. (2012). Social investment and the Euro Crisis: The Necessity of a Unifying Social Policy Concept. *Intereconomics*, 1-7, ZBW – Leibniz Information Centre for Economics.

Hermann, C. (2014). Structural adjustment and neoliberal convergence in labour markets and welfare: The impact of the crisis and austerity measures on European economic and social models. *Competition & Change*, 18(2), 111–130.

Hicks, A. (1999). *Social Democracy and Welfare Capitalism. A Century of Income Security Politics* New York: Cornell University Press.

Huber, E. & Stephens, J.D. (2001). *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*. Chicago: University of Chicago Press.

Im, K.S., Pesaran, M.H & Shin, Y. (2003). Testing for Unit Roots in Heterogeneous Panels. *Journal of Econometrics,* 115, 53–74.

Iversen, T. & Cusack, T. (2000). The causes of welfare state expansion: deindustrialization or globalization? *World Politics*, 52, 313–49.

Jaeger, M.M. (2009). United But Divided: Welfare Regimes and the Level and Variance in Public Support for Redistribution. *European Sociological Review*, 25(6), 723-737.

Kenworthy, L. (2009). The effect of public opinion on social policy generosity. *Socio-Economic Review,* 7(4), 727-74.

Kitschelt, H. (1994). *The transformation of European Social Democracy*. New York: Cambridge University Press.

Knill, C. & Lehmkuhl, D. (1999). How Europe Matters: Different Mechanisms of Europeanization. *European Integration Online Papers*, 3(7), http://eiop.or.at/eiop/texte/1999-007.htm

Korpi, W. & Palme. J. (2003). New Politics and Class Politics in the Context of Austerity and Globalization: Welfare State Regress in 18 Countries. *American Political Science Review,* 97, 425–46.

Kühner, S. (2007). Country-level comparisons of welfare state change measures: Another facet of the dependent variable problem within the comparative analysis of the welfare state. Journal of European Social Policy, 17(1), 5-18.

Kuipers, S.L. (2006). *The Crisis Imperative: Crisis Rhetoric and Welfare State Reform in Belgium and the Netherlands in the Early 1990s*. Amsterdam: Amsterdam University Press.

Leibfried, S. & Pierson, P. (1995). *European Social Policy. Between Fragmentation and Integration*. Washington DC: Brookings Institution.

Levin A, Lin C.F. & Chu, C. (2002). Unit Root Tests in Panel Data: Asymptotic and Finite-sample Properties. *Journal of Econometrics*, 108, 1–24.

Maddala, G.S. & Wu, S. (1999). A Comparative Study of Unit Root Tests with Panel Data and A New Simple Test. *Oxford Bulletin of Economics and Statistics*, 61, 631-652.

Mladovsky, P., Srivastava, D., Cylus, J., Karanikolos, M., Evetovits, T., Thomson, S. & McKee, M. (2012). *Health policy responses to the financial crisis in Europe*. Copenhagen:World Health Organization.

Montanari, I. (2001). Modernization, globalization and the welfare state: a comparative analysis of old and new convergence of social insurance since 1930. *British Journal of Sociology*, 52(3), 469-94.

Mosher, J. & Trubek, D. (2003). Alternative Approaches to Governance in the EU: EU Social Policy and the European Employment Strategy. *Journal of Common Market Studies*, 41(1), 63–88.

OECD, (2012). *Restoring Public Finance*. Paris: OECD.

OECD, (2015). *FOCUS on Health Spending*. OECD Health Statistics.

Otto, A. (2017). A Benefit Recipiency Approach to Analysing Differences and Similarities in European Welfare Provision. *Social Indicators Research*, 137(2), 765-788. https://doi.org/10.1007/s11205-017-1621-5.

Paetzold, J. (2013). The Convergence of Welfare State Indicators in Europe: Evidence from Panel Data. *European Journal of Social Security*, 15(1), 28–55.

Palier, B. (2010). The long conservative corporatist road to welfare reforms. In B. Palier (ed.), A Long Goodbye to Bismarck? *The Politics of Welfare Reform in Continental Europe*, 333–387. Amsterdam: Amsterdam University Press.

Piazza, J. (2001). De-linking labor: labor unions and social democratic parties under globalization. *Party Politics,* 7(4), 413–435.

Pierson, P. (ed) (2001). *The New Politics of the Welfare State*. Oxford: Oxford University Press.

Rodrik, D. (1998). Why do more open economies have bigger governments?. *Journal of Political Economy*, 106(5), 997-1032.

Scharpf, F.W. (1998). Negative and Positive Integration in the Political Economy of European. Welfare States. In Rhodes, M. & Meny, Y. (eds), *The Future of European Welfare*. A New Social Contract?. London: Macmillan Press Ltd., 157-77.

Schmitt, C. & Starke, P. (2011). Explaining Convergence of OECD Welfare States: A Conditional Approach. *Journal of European Social Policy*, 21(2), 120–35.

Starke, P., Kaasch, A., & van Hooren, F. (2014). Political Parties and Social Policy Responses to Global Economic Crises: Constrained Partisanship in Mature Welfare States. *Journal of Social Policy*, 43(2), 225-246.

Starke, P., Obinger, H., & Castles, F.G. (2008). Convergence towards Where: In What Ways, If Any, are Welfare States becoming More Similar? *Journal of European Public Policy*, 15(7), 975–1000.

Stiller, S. (2010). *Ideational Leadership in German Welfare State Reform: How Politicians and Policy Ideas Transform Resilient Institutions*. Amsterdam: Amsterdam University Press.

Tanzi, V. (2002). Globalization and the Future of Social Protection. *Scottish Journal of Political Economy*, 49, 116–27.

Taylor-Gooby, P. (ed.) (2004). New Risks, New Welfare: The Transformation of the European Welfare State. Oxford: Oxford University Press.

Thalassinos, I.E. & Politis, E.D. (2011) International Stock Markets: A Co-integration Analysis. European Research Studies Journal XIV(4), 113-130.

Trubek, D.M. & Trubek, L.G. (2005). Hard and Soft Law in the Construction of Social Europe: the Role of the Open Method of Co-ordination. European Law Journal 11(3), 343–364.

Vis, B., van Kersbergen, K., & Hylands, T. (2011). To What Extent Did the Financial Crisis Intensify the Pressure to Reform the Welfare State? Social Policy & Administration 45(4), 338–353.