Uneven responsiveness to diffusion effects?
Regional patterns of unemployment policy
diffusion in Western and Eastern Europe

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Abstract

This paper examines to what extent diffusion of unemployment protection standards is conditional on domestic political and economic context. The development of welfare states in Europe constitutes a particularly interesting case for examining conditional policy diffusion, as the mature Western and transitional Central Eastern European (CEE) welfare states are similarly exposed to forces of globalization, but have very different historical pre-requisites. To inquire the intensity and mechanisms of diffusion effects in 25 European countries since the mid-1990s, we draw upon novel institutional data on unemployment insurance benefits. Different diffusion mechanisms and domestic conditional effects are modeled by utilizing spatial regressions. The results show that the CEE countries orient themselves towards their economic competitors, whereas the Western European countries learn from contiguous countries. Political institutions filter diffusion effects in Western Europe, while business cycles impact the responsiveness in the CEE countries.

Keywords: Diffusion, spatial analysis, welfare policies, unemployment benefits
Introduction

Spatial interdependency in the formation and adjustments of domestic institutions and policies has received growing attention in comparative political science. Meanwhile, it is a widely accepted view that policy choices of governments are affected by previous policy choices in other countries (Dobbin, Simmons, and Garrett 2007; Franzese and Hays 2008; Gilardi 2012, 2013; Jahn and Stephan 2015; Simmons and Elkins 2004). However, matching theoretical arguments and empirical evidence on the different mechanisms of policy diffusion is still partly in its infancy. One of the areas which has received less attention in diffusion studies so far is systematic heterogeneity in exposure and responsiveness to diffusion effects (Basinger and Hallerberg 2004; Neumayer and Plümper 2012; Shipan and Volden 2008; Swank 2006). Responsiveness of governments to spatial dynamics is argued to be conditional on the institutional, political, economic or social context in which the stimulus for policy change is received. Specific common contexts in world regions or certain groups of countries, in turn, may lead to systematically differing patterns of responsiveness to diffusion effects – an aspect which has received only little theoretical and empirical attention thus far – but is moving forcefully on the agenda of diffusion research (Solingen 2012; Wasserfallen 2014).

Europe constitutes a particularly interesting case for examining regionally diversified effects of policy diffusion. The dense connectivity of European countries through the formal institutions of the European Union (EU), but also via informal economic, political and cultural interaction patterns, as well as historical roots, suggests that policies are particularly likely to diffuse across the region. Europeanization studies have highlighted the direct effects of the EU through coercion, conditionality, socialization and persuasion, but also the indirect effects through normative emulation, lesson-drawing and competition (Börzel and Risse 2012). These mechanisms broadly coincide with the mechanisms identified in the diffusion literature in general (Börzel and Risse 2012; Shipan and Volden 2008; Gilardi 2012; Jahn and Stephan 2015). Depending on the policy field under scrutiny, either direct or indirect diffusion of policies can be expected. Moreover, the diffusion effects may be differing along the line between the “old” and the “new” member states; the Eastern enlargement of the EU has brought together mature Western and transitional Central Eastern European (CEE) welfare states that are similarly exposed to forces of globalization and economic competition. At the same time, they differ greatly in their political and economic context and, subsequently, potentially feature varying responsiveness to diffusion effects.

This paper focuses on regionally diversified diffusion effects by asking whether diffusion of unemployment protection standards has taken place in the enlarged EU and whether the intensity, the mechanisms at work and the direction of diffusion have been different in Western and Eastern Europe. We have chosen the field of unemployment insurance to analyze uneven responsiveness to diffusion, first, because this field of social policy is not directly regulated at the EU level, thus leaving the nation states room for shaping entitlements. This also suggests that the mechanism of coercion as a source of diffusion does not play a role. Second, unemployment insurance is one of the key fields of social protection and of growing importance.
when considering the insecurities common in the contemporary labor market. In other words, as with the welfare state in general, it is a politically salient issue and subject to reforms in almost all European countries in recent decades. Third, adjustments of the level of unemployment benefit generosity is arguably subject both to competition considerations and to learning, thus making this field of social policy potentially sensitive to different mechanisms of diffusion.

The major assumption of this paper is that both the economic and the political context of welfare policy making has been different in the "old" Western European and the "new" Central and Eastern European member states. Therefore, different responsiveness to diffusion effects is likely to occur. In general, the CEE countries should be more receptive to diffusional effects because of the formative moment of substantial recalibration of the welfare systems in the transition period (Kuitto 2015). Western European welfare states, in turn, may have been more reluctant to learn from other countries, as existing institutional settings and their political relevance constrain change. On the other hand, competition pressures within the Single Market and more generally in the global market, apply for both parts of Europe. Therefore, because social protection standards are presumably also conditional to (expected) negative externalities, we test for the relative importance of the mechanisms of learning and externalities by modeling spatial dependencies accordingly (Neumayer and Plümper 2012). The differing political and economic context of the Western and the CEE countries, specifically economic hardship in combination with the ongoing stabilization of political systems in the transition countries of CEE, may also lead to different conditional impacts of functional and domestic political factors across the region.

This study draws on novel institutional data on welfare entitlements in 25 European countries\(^1\) which enables diffusion analysis of the generosity of social protection in the whole of the enlarged EU for the first time. We focus on a period from mid-1990s until before the onset of the financial crisis in 2008. By 1995, the CEE countries had reached the first stage of institutional, political and societal consolidation, allowing policy-making to emerge from the constraints linked to the immediate prerequisites of the transformation (Jahn and Kuitto 2011). After 2007, in turn, the economic crisis may have influenced social policy making in a way which thwarts the causal relationships of interest in this study.

The paper is structured as follows: In the next section, we first discuss different mechanisms of diffusion potentially at work in the field of unemployment protection policy. We then develop an argument why European countries potentially respond differently to diffusion impulses when adjusting their unemployment benefit generosity. Section three discusses the operationalization of the variables and outlines the data and methods used in the analysis. The results of the spatial regression models are presented and discussed in section four. We show that both the mechanisms of diffusion at work and the conditioning effects of domestic factors are different in Western and Eastern Europe, leading to uneven responsiveness to diffusion stimuli.

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\(^1\)These include Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom.
We conclude by addressing important theoretical and methodological implications for future diffusion research.

Social policy diffusion in Europe - uneven responsiveness to international impacts?

**International impacts on social policy**

Domestic explanations have long been dominant in comparative welfare state research until recently. With the increasing importance of economic globalization, international factors have gained considerably more attention. However, international impacts were long mainly seen as functional necessities (e.g. Garrett and Mitchell 2001; Scharpf and Schmidt 2000a; 2000b; Swank 2002). The functional strain of the internationalization approach was largely dominated by two competing hypotheses – the efficiency hypothesis vs. the compensation hypothesis (e.g. Cameron 1978; Garrett 1998).

More recently, spatial dependencies have regained importance when analyzing social spending (Franzese and Hays 2006; Jahn 2006), reforms in different social policy sectors (Brooks 2007; Dolowitz and Marsh 2000; Gilardi, Füglister, and Luyet 2009; Weyland 2006), as well as welfare entitlements (Gilardi 2010; Schmitt and Obinger 2013). However, in which ways domestic factors constrain diffusion of social policies and how this may result in regionally uneven impacts of spatial interdependencies has not been addressed through systematic comparative analysis thus far. This study therefore seeks to contribute to a better understanding of conditional diffusion effects in social policy making.

**Mechanisms of social policy diffusion**

We conceptualize the effects of spatial interdependencies between states with regard to public policies as policy diffusion. In this view, policy decisions in a given country are systematically conditioned by prior policy choices made in other countries (Simmons, Dobbin, and Garrett 2006, 787). Decision making is exposed to both positive and negative externalities which lead to strategically different reactions according to the theory of interdependence. There are several forms of interdependence among nations, and policy choices are thereby affected through different causal mechanisms. In the field of social policy in Europe, competition and learning appear to be the two most important mechanisms to explain how policies diffuse through interdependence.

**Competition.** In general, many studies of policy diffusion utilize competition as a causal mechanism to predict the effects of changes in the international political economy on state policy decisions (Basinger and Hallerberg 2004; Jahn 2006; Neu-

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2 There is also some evidence on diffusional impacts in the formative era of welfare states (Casey 2009; Obinger, Schmitt, and Starke 2013).

3 A further mechanism often discussed in the literature is coercion, i.e. transfer of policies based on asymmetrical power relations. The EU has arguably exercised coercive power towards the accession countries, but in the field of social policy, coercion is less likely because the regulatory power in this field remains mostly within the nation states.
mayer and Plümper 2012; Simmons and Elkins 2004; Swank 2006). Competition is at work when governments react to each other’s policies in order to attract or maintain investment and avoid negative spillover effects. The relationship between states is thus often indicated through international trade. The stronger the trade connections between two states are, the more likely policy diffusion is. This causal mechanism is based on the assumption that countries with dense trade relations monitor their competitors and adjust their policies to gain competitive advantage (Kil Lee and Strang 2006, 890). Competition emphasizes the strategic behavior of governments shaped by negative and positive externalities. States anticipate the economic consequences of a decision in other countries. The actual essence of a policy is not the most important.

The competition argument is especially prone in discussions on the decline of social standards due to economic globalization (the efficiency hypothesis). Modern welfare states need to attract foreign capital and international businesses (Dobbin, Simmons, and Garrett 2007). Any retrenchment of unemployment benefits in a given state can be seen as a competitive advantage in terms of labor costs, and, in some views, also an incentive for labor market participation leading to higher productivity. Particularly in neoliberal economic theory, high replacement rates present one of several “labor market rigidities” which inhibit efficient performance, and consequently should be removed. Retrenchment of social benefits thus affects competing members to trade off their own social policies against the policies of their competitors. This is in line with the literature asking whether the enlargement will cause a “race to the bottom”.

Competition pressures presumably affect all European countries by direct economic externalities and we therefore expect diffusion via competition to occur in both Western and Eastern European countries. However, the reasons for adapting to competition pressures may differ. For the CEE countries, competitiveness is an important feature for further stabilizing and developing their economies which remain more vulnerable than the “old” market economies (Jahn and Kuitto 2011). Western European countries, in turn, are likely to react to competition pressures, as their high social security standards may hinder competitiveness especially with regard to the entry of the CEE countries in the EU. Therefore, the following hypothesis can be derived:

Hypothesis 1. Social policy diffusion through economic competition is likely to occur in both Western and Eastern European countries.

Learning. Learning is conceptualized as a process in which policy makers change their beliefs about the effects of a policy (Dobbin, Simmons, and Garrett 2007). Unintentional, diffuse learning which is often seen as a mere function of interaction and communication can be distinguished from intentional learning, a deliberate re-orientation toward already tested and successful policies, be it in time or space (Gilardi 2010; Meseguer 2005; Neumayer and Plümper 2012; Rose 1991). In the latter case, governments observe the effect of given policies in other countries, in search of best practice, subsequently updating their beliefs on the effectiveness or appropriateness of certain policies on the basis of their observations of other’s experience (Gilardi 2010). Learning can be categorized as a “constructivist approach” (Dobbin,
Simmons, and Garrett 2007) as it “presuppose[s] nothing but information exchange and communication with other countries” (Holzinger and Knill 2005, 783). Consequently, geographic propinquity, or closeness based on other ties, increases the probability of communication. Communication is needed to learn how effective and successful a policy was elsewhere. Geographic propinquity often goes along with common cultural and historical features as well as established institutional relationships, all of which substantially increase the likelihood of communication and the sharing of information on best practices and policy failures. In other words, propinquity theoretically causes diffusion (Schmitt and Obinger 2013).

In the field of social policy, all European governments are more likely to search for policy solutions by looking at other countries’ experiences, as all welfare states face post-industrial pressures and have been adjusting their welfare policies to a greater or lesser degree (Bonoli and Natali 2012; Esping-Andersen 1999; Pierson 2001b; Taylor-Gooby 2004). However, the CEE countries may have been especially responsive to policy diffusion via learning from other countries’ models because of the large-scale transformation of the welfare systems after 1989/90 (Kuitto 2015). We can thus express our assumption in the following hypothesis:

Hypothesis 2. Social policy diffusion through learning is more likely to occur in the CEE than in the Western European countries.

Uneven prerequisites – uneven responsiveness

We thus expect that welfare policies diffuse especially via the mechanisms of competition and learning in the enlarged Europe and that these mechanisms are of varying importance for the old member states of the EU and the CEE countries. But not only do we assume different mechanisms of diffusion to be at work in Western and Eastern European countries. Moreover, in line with the most recent approaches (Basinger and Hallerberg 2004; Neumayer and Plümper 2012; Shipan and Volden 2008; Solingen 2012; Swank 2006; Wasserfallen 2014), we assume that diffusion effects are conditional on domestic contexts which systematically differ between Eastern and Western Europe and that this leads to uneven responses even to the same stimuli. This is especially true for economic prerequisites and strength as well as the maturity of political systems.

Of the domestic political factors, veto power of political institutions is potentially the most important conditioning factor for diffusion effects. The classical institutionalist view states that the more veto points or players entering the arena, the less likely political change is, i.e. veto points inhibit welfare state expansion or retrenchment (Castles 1999; Huber, Ragin, and Stephens 1993; Huber and Stephens 2001). We expect the filtering effect of veto players to be higher in Western democracies than in the CEE countries, where political institutions are less clearly settled and embedded in domestic societal structures.

Hypothesis 3. Veto players are more likely to filter diffusion effects in Western European than in the CEE countries.

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Most of the post-communist countries introduced unemployment insurance systems only after 1989/90.
The economic situation sets another important conditional context for diffusion effects. Given the transition of the CEE countries from planned to market economies and the subsequent macro-economic instabilities in most of the countries, the different economic constrains in East and West are likely to condition the adaption of external stimuli differently. With respect to the early functional approaches in comparative welfare research (e.g. Franzese 2002; Wilensky 1975), the state of the economy and conjuncture cycles influence the generosity of the welfare state. In the European context, economic growth may determine adjustments in the level of social benefits for two reasons. First, in times of positive conditions, governments simply have more leeway for spending and thus for more generous welfare benefits (Franzese 2002). Second, business cycles also form the perceptions of the electorate about the adequacy of benefit cuts or increases and may therefore condition the policy options of the governments (see for example Sattler, Freeman, and Brandt 2007). Business cycles may affect the CEE countries’ vulnerable economics and condition social policy adaptions and force cost-containment – regardless if based on external or domestic stimuli – to a greater extent than in Western European countries. CEE countries are more likely to respond to positive diffusion towards higher social protection standards in times of economic growth, but in times of economic recession, only external stimuli towards lowering of benefit levels is likely to occur. With respect to economic constraints of diffusional effects, the following hypothesis can be derived:

**Hypothesis 4. Business cycles condition diffusion effects more strongly in the post-communist countries than in Western Europe.**

The comparative importance of the two diffusion mechanisms and the conditional effect of domestic contexts are empirically tested in spatial regression models including accordant specifications and a set of standard explanatory variables for social security benefit levels described in more detail below.

**Data and method**

**Dependent variable**

The dependent variable of this study is the net replacement rate in unemployment insurance scheme. The replacement rate indicates the level of income replacement achieved by unemployment cash benefits relative to wage earnings prior to loss of income due to unemployment. Conceptually, replacement rates and the concomitant eligibility criteria reflect the generosity and the decommodifying potential of social security schemes in a given welfare state (Esping-Andersen 1990; Scruggs and Allan 2006). Empirically, the operationalization ties in with the tradition of previous research, as the replacement rate is calculated as an average of the income replacing level for a single and a family household of a notional Average Production Worker (APW) (Scruggs and Allan 2006; Scruggs, Jahn and Kuitto 2014a). The data stems from the CWED2 Dataset (Scruggs, Jahn and Kuitto 2014b).

On average, the unemployment replacement rate is lower in the CEE (52%) than in the Western European welfare states (65%), but in both groups, there are coun-
tries with less (for example Poland and the UK) or more generous unemployment benefits (for example Latvia and the Netherlands). The trends in the generosity of unemployment benefits are heterogeneous across the countries, but in general, there is a slight decrease in the Western European countries since 1995 in contrast to an increasing trend in the CEE countries at least from 1997 on. The more generous countries, for example Denmark, Finland, Spain, Portugal and Sweden, have especially lowered their unemployment benefits, while some of the less generous schemes in Estonia, Lithuania, but also in Italy, have been reformed to offer more generous benefits for the unemployed. Although weak, a convergent trend thus can be observed, which might be resulting from policy diffusion.

Spatial lag variables

While the theoretical mechanism of diffusion describes why policies spread in an interdependent process among relevant countries, empirical models ask for a clear description of the ways how countries are connected in terms of specific policies. Estimation models define these ways in terms of connectivity matrices (Ward and Gleditsch 2008). Connectivity matrices are an essential part of spatial regressions because they are the basic element of modeling the so-called spatial lag, which is included into the regression as an additional variable. The spatial lag for each country-year is a product of the value of the dependent variable (in our case the unemployment replacement rate) in all other countries weighted by the connectivity matrix.

The mechanism of competition requires some form of trade relations between countries. According to our argument, countries that exchange more goods or capital influence the economic situation in connected countries as a result of positive and negative externalities. States therefore must react in a strategic way to avoid any economic disadvantage. We construct the connectivity matrix for the diffusion mechanism of competition by the sum of imports and exports between the European states in a given year by absolute values. This is one of the standard measures of connectivity between countries (Jahn 2006; Schmitt and Obinger 2013). The diffusion weight thus indicates the relative importance of the European trade partners for each one of our countries.

For modeling diffusion by learning, disentangling this kind of diffusion is somewhat problematic in macro-comparative analysis as it is based on communication only. One is therefore left with the task of looking for plausible proxies which best capture the maximum likelihood of communication. We stick to a rather general operationalization by looking at geographical closeness as a precondition for learning and opt for geographical neighbors as a proxy for contiguity and intense communication, taking the notion of Beck et al. who argue that “space is more than geography” (2006; see also Putnam 1967; Ross and Homer 1976). Neighboring countries typically have established political cooperation and interaction which makes learning from each other’s policy solutions more likely. Furthermore, countries are in

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5 Technically, the spatial lag multiplies the connectivity matrix, after it has been row-standardized, with the dependent variable (Gilardi 2012, 454–5). On the advantages and disadvantages of row-standardization, see Neumayer and Plümper 2010.

6 Data stems from the “Direction of Trade Statistics” (International Monetary Fund).
many cases more similar to their neighbor countries than to countries far away. Examples are the Baltic States, the Nordic countries or Germany, Austria and Switzerland. Geographical propinquity has been measured by both capital distance (Gleditsch and Ward 2001) and shared border length (Cao 2010), but in essence, the fact that two countries are neighbors accounts for the theoretical argument of cross-national communication and propinquity. For that reason, we construct the connectivity matrix for the diffusion mechanism of learning by a dichotomous coding of neighborhood.\footnote{Because countries which do not share land borders but are connected over sea also follow the logic of neighborhood interaction,\footnote{we code 1 for countries which either share a direct land border, or the distance between their shores is less than 150 kilometers.}} Because countries which do not share land borders but are connected over sea also follow the logic of neighborhood interaction,\footnote{we code 1 for countries which either share a direct land border, or the distance between their shores is less than 150 kilometers.} we code 1 for countries which either share a direct land border, or the distance between their shores is less than 150 kilometers.\footnote{We also tested for capital distance and border length in the regressions. While a spatial lag based on border length brought very similar results, capital distance did not provide significant results.}

**Independent variables**

*Veto players.* According to Tsebelis (2002, 17), veto players are “actors whose agreement is required for a change of the status quo”. We take coalition parties, second chambers and presidents into account.\footnote{For example Finland and Estonia, Denmark and Sweden, Great Britain and the Netherlands, Belgium and France.} As with Tsebelis (2002, ch. 7 and 8; Tsebelis and Chang 2004), we use the ideological distance on the Left-Right scale of the two most opposite veto players. For the Western European countries, the inclusion of second chambers and presidents is based on Tsebelis and Money’s (1997) and Lijphart’s (1999) assessments whether they have an impact on the political process (Jahn 2010, 62).\footnote{See also Hensel 2007. Neighbors and distance estimation between the mainland shores based on own calculation.} In this tradition, we extend the analysis also to include the CEE countries.\footnote{The position of the 1st and 2nd chamber is the position of the party encompassing the median parliamentarian; the position of the President is his/her party’s position.} Data for the government position and the veto player stem from the PIP - Parties, Institutions & Preferences dataset (Jahn, Behm, Düpont and Oberst 2012).

*Economic growth.* Economic growth mirrors the short-term economic pressures stemming from business cycles (Franzese 2002). Positive growth may lead to increased generosity as it gives governments room to maneuver. In contrast, negative growth may put pressure on policy makers to reduce welfare generosity. In times of recession, governments may bolster their competitiveness by reducing labor costs vis-à-vis their trading partners. The data stems from World Bank (2012).
Control variables

GDP. With reference to the early studies in comparative welfare state research (e.g. Wilensky 1975), we include Gross Domestic Product (GDP) per capita as a rough proxy for the overall economic wealth potentially facilitating welfare policies.\(^\text{13}\) We expect wealthier countries to show more generous levels of unemployment benefits. The level of GDP may be especially important in the CEE countries, as the transition from centrally planned to market economies in CEE has still left most of the CEE countries lagging behind the Western European countries in terms of economic wealth (Jahn and Kuitto 2011, 733). As with government position, we also test whether economic wealth conditions diffusion effects. The data stems from World Bank (2012).

Unemployment. Unemployment rate poses a further short-term functional pressure for adjustments of unemployment benefit level and we thus include it in the analysis in order to control for the effects of the population in need of unemployment benefits. Data for unemployment is taken from International Labour Office (ILO).

Method of analysis

We apply a Time-Series–Cross-Section (TSCS) S-OLS regression analysis with panel-corrected standard errors controlling for first-order autocorrelation AR(1) within panels (Beck and Katz 1995) and capture spatial dependence by estimating a spatial lag model. There is no reason to expect that the impact of diffusion undermines domestic factors completely in setting social protection standards. Given the relatively small sample size, Franzese and Hays (2007) conclude that under such a presumption, the use of a S-OLS approach performs as a good as any other elaborated estimator.

In order to assess whether the intensity or direction of diffusion is different in Western Europe or the CEE countries, we abstained from specifying different models for each sub-sample. Instead, we opt for a “fully dummy-interactive” model, as this procedure yields the same results but is superior in interpretability and efficiency (Kam and Franzese 2007, 103–11). The estimation thus takes the following form:

\[
y_{it} = \text{East/West Dummy} \left( \rho \sum_k w_{ikt} y_{kt-1} + \beta X_{it-1} + t_t + \epsilon_{it} \right)
\]

where \(\beta X_{it-1}\) are the independent variables, namely veto player, growth, GDP, government position and unemployment. All independent variables were lagged by one year. \(t_t\) are time period fixed effects which control for common shocks and trends not part of the spatial dependence. Excluding them would risk an overestimation of the spatial lag (Plümper and Neumayer 2010, 426). However, we do not include country fixed effects; omitting them gives a mild omitted variable bias, but

\(^\text{13}\) See also Franzese (2002, 76) on the application of Wagner’s Law with respect to social transfer spending.
including them would suppress the level effects we are interested in (Plümper, Troeger, and Manow 2005, 330–4). \( \sum_k w_{ikt} y_{kt-1} \) is the spatial lag constructed by weighing the connectivity matrix with the lagged dependent variable for unit \( i \neq k \) (Franzese and Hays 2007, 143–4; Plümper and Neumayer 2010, 420–2).

In the first step, we take a look at unconditioned diffusion effects for the two mechanisms. Given our hypothesis that diffusion may be conditional on domestic factors, in a second step we then follow Neumayer and Plümper (2012, 833–4) who recently proposed the idea of modeling heterogeneity in responsiveness. This can be modeled as an interaction effect between the spatial lag and the conditioning (domestic) variable \( z_{it}^1 \). Our estimation then takes the following form:

\[
y_{it} = \text{East/West Dummy} \left( \rho_1 \sum_k w_{ikt} y_{kt-1} + \rho_2 \sum_k w_{ikt} y_{kt-1} z_{it}^1 + \phi z_{it}^1 + \beta X_{it} + \tau + \epsilon_{it} \right)
\]

To check whether our results are robust, we ran all models with jackknife procedure, and tested for heteroscedasticity and multicollinearity.\(^{14}\) Where notable we report these results.

**Results**

In the first step, we analyze whether diffusion of benefit generosity has taken place in Europe at all. Table 1 shows the regression results on unemployment benefit generosity testing for diffusion via competition (trade) and learning from neighbors.

\(^{14}\) An interaction term usually introduces considerable multicollinearity when entered into a regression equation. In our analysis, both diffusion variables showed levels on the Variance Inflation Factor (VIF) >10. One common approach to treat this problem is the centering of the focal variable (Robinson and Schumacker 2009). However, re-estimating the models with centered variables did not change the results (apart from reducing these variables’ VIF). Since the interpretation of the centered variable is not as straightforward, we report the results from the uncentered estimations.
### Table 1: Regression results of diffusion mechanisms in Europe, 1995-2007

<table>
<thead>
<tr>
<th></th>
<th>(1) Trade</th>
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<th>(2) Neighbors</th>
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<tr>
<td></td>
<td>East</td>
<td>West</td>
<td>East</td>
<td>West</td>
</tr>
<tr>
<td>Veto players$_{t-1}$</td>
<td>0.099</td>
<td>0.242**</td>
<td>0.027</td>
<td>0.131*</td>
</tr>
<tr>
<td></td>
<td>(0.225)</td>
<td>(0.085)</td>
<td>(0.217)</td>
<td>(0.066)</td>
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<tr>
<td>Unemployment$_{t-1}$</td>
<td>-0.338</td>
<td>0.006</td>
<td>-0.064</td>
<td>0.187</td>
</tr>
<tr>
<td></td>
<td>(0.301)</td>
<td>(0.213)</td>
<td>(0.341)</td>
<td>(0.229)</td>
</tr>
<tr>
<td>GDP p.c.$_{t-1}$</td>
<td>0.001**</td>
<td>-0.000</td>
<td>0.001*</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
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<tr>
<td>Growth$_{t-1}$</td>
<td>0.166</td>
<td>-0.529</td>
<td>0.322</td>
<td>0.068</td>
</tr>
<tr>
<td></td>
<td>(0.302)</td>
<td>(0.352)</td>
<td>(0.286)</td>
<td>(0.232)</td>
</tr>
<tr>
<td>Diffusion trade</td>
<td>-2.133**</td>
<td>0.254</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.744)</td>
<td>(0.229)</td>
<td></td>
<td></td>
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<tr>
<td>Diffusion neighbors</td>
<td>-0.151</td>
<td>0.494***</td>
<td></td>
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<tr>
<td></td>
<td>(0.181)</td>
<td>(0.082)</td>
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| R-squared              | 0.924     | 0.874    |
| Adj. R-squared        | 0.932     | 0.888    |
| N                     | 300       | 300      |

Level of significance: * p<0.05, ** p<0.01, *** p<0.001; period fixed effects included (not reported); first line are unstandardized regression coefficients with corrected standard errors in parentheses.

What stands out is that diffusion takes different forms in Western and in Central Eastern Europe. Figure 1 visualizes the marginal effects of diffusion in Eastern and Western European countries. Interdependence via trade relations has a significant impact in Eastern, but not in Western Europe. The unemployment insurance generosity of the CEE countries is negatively related to the one of their important trading partners. This may be driven by negative externalities and free-riding. Because the Western European countries have a main share of the trade of the CEE countries (about 60% on average under the period of observation), and at the same time the unemployment benefit generosity in the CEE countries on average is lower than in the Western European countries, the negative coefficient may by trend mean that the post-communist member states tend to lower levels of unemployment benefit generosity compared to their main trading partners, possibly seeking to repress production costs in line with the efficiency hypothesis. Hypothesis 1, proposing occurrence of social policy diffusion along the lines of economic competition in all European countries, thus only finds confirmation when applied to the CEE countries. In contrast, and against our assumption in Hypothesis 2, learning from neighbors does not significantly impact social policies in the CEE countries but rather in the Western European countries. Western European welfare states are influenced by their neighbors and engage in a “positive striving” for better standards. This might be due to the long-term institutionalized relationships of the Western European states with each other, but also simply because the mature welfare states can “afford” engaging in higher social spending. In sum, diffusion thus has a significant impact on adjusting
unemployment benefits levels, but the mechanisms through which diffusion occur are different in Western and Eastern Europe.

Of the endogenous variables, only veto players and the level of the economic wealth stand out. As presumed, the level of GDP does not significantly influence benefit generosity in Western European welfare states. In CEE countries however, a higher level of economic development corresponds significantly to higher levels of unemployment benefit generosity. Institutional barriers constrain benefit generosity in Western Europe and although insignificant, veto players also impact the level of unemployment benefits in the same direction as the CEE countries, i.e. the higher the veto player range, the higher unemployment benefit generosity. This is in line with the "consensus" argument, stating that countries with consensual institutional arrangements are "kinder and gentler" (Lijphart 1999) in their policy outcomes. Short term pressures on the unemployment insurance system in form of unemployment rate do not shape the level – although their signs indicate that the effect may differ in East and West.

Figure 1: Average marginal effect of diffusion over levels of East/West (with 95% CI)

In the next step we test whether the effect of diffusion is conditional on domestic factors. Veto players filter the effect of diffusion in Western, but not in Eastern Europe. The full models including the interaction between diffusion and veto players are presented in Table A2 in the Appendix.

Interacting veto players with diffusion by trade does not yield any results. The interaction term remains insignificant and the marginal effects do not change over levels of the veto player range. For Western Europe, however, the interaction of diffusion from neighbors becomes negative and significant, i.e. a one-point increase of the veto player range would reduce the effect of diffusion by -.026 (Figure 2). For Eastern Europe, the effect is negative but insignificant over all levels of the veto player. Given the still fluid nature of CEE countries’ political systems, this indicates that until now, no effective veto power has been established which would undermine diffusional impacts. The opposite is true for Western Europe: long-standing institutional structures have emerged which filter and weaken the effect of diffusion. Here, the higher the veto player range is, the less learning from neighbors occurs. In
countries with a veto player range over 20 points, the effect of diffusion becomes statistically insignificant, i.e. no learning takes place if strong veto players inhibit external stimuli. The results thus support Hypothesis 3 stating that domestic politics conditions diffusion effects more strongly in the established Western democracies than in the post-communist countries.

Figure 2: Average marginal effect of diffusion neighbors over levels of veto players (with 95% CI)

In a last step, we consider whether diffusion is filtered by economic constraints by modeling the interaction between the spatial lags and GDP, as well as growth. While the general level of economic development does not play a role, economic growth filters the effect of diffusion. The full models are again presented in the Appendix (Table A3) and show only marginal changes in comparison with the basic models regarding the impact of the domestic variables in Table 1. Both models are less robust than the basic models in Table 1. However, diffusion remains significant for CEE using jackknifed results, while the veto player in the sixth model becomes insignificant.
The conditional effect of diffusion and growth is presented in Figure 3. Diffusion via trade partnership exerts a negative influence on unemployment benefit generosity in Eastern Europe regardless of economic growth, although the effect is significant only in times of positive growth. However, as the slope is flat, the effect is marginal. In Western Europe, the direction of the effect depends on business cycles: in times of economic hardship (if growth is near zero or negative), governments tend to lower their unemployment benefit generosity vis-à-vis their trading partners in order to regain competitiveness. The effect becomes positive in times of economic prosperity, i.e. if governments can “afford” higher levels. However, the diffusion effect is only significant for either considerably high negative growth rates, which do not occur in the sample of Western Europe, or for high positive growth rates, which are apparent in only few observations. Altogether, external stimuli resulting from spatial interdependencies seem to affect social policy generosity only in times of economic prosperity.

Diffusion from neighbors, however, is not conditional on economic performance (hence not visualized), as the interaction term remains insignificant and the marginal effect remains positive (and significant) for Western Europe regardless of the values of growth. For Eastern Europe, it is of trivial magnitude and not distinguishable from zero. Altogether, Hypothesis 4 predicting a greater conditionality of diffusion effects on economic circumstances in the CEE countries finds limited support.

Although not the focus of this paper, we ran the analyses with benefit generosity in other social security programs (sickness insurance, minimum pensions) too, coming up with very similar results. This seems to suggest that diffusional effects and the conditioning power of domestic politics and economy work in the same way with respect to welfare policies more generally.
Conclusion

The starting point for this analysis has been whether diffusion of unemployment benefit generosity has taken place in the enlarged Europe at all and whether the effects are conditional on political and economic contexts. The results show that social policy standards in the field of unemployment insurance indeed diffuse, but diffusion effects are regionally uneven in a systematic way (Solingen 2012). Different mechanisms of diffusion are at work in the old and new member states. Moreover, domestic factors condition policy diffusion in different ways in Western and Eastern Europe. We find that in the new member states of CEE, economic competition affects the level of unemployment benefit generosity. The unemployment protection standards in CEE countries are negatively related to those of their important trading partners even and especially in times of positive growth, possibly attesting to negative externalities effects. Western European countries, in turn, adjust their benefit generosity levels to those of their generous trading partners if they can afford it in times of positive growth. At the same time, learning from close neighbors takes place in the Western European countries as they appear to engage in positive striving for higher standards. Nevertheless, veto players effectively filter and weaken this influence in the "old" European democracies. Given the fluid nature of the political systems in CEE, no effective institutional barriers against international influences exist for these countries. Instead, they are much more exposed and responsive to international stimuli.

This study not only uncovers uneven responsiveness for diffusion effects but provides explanations why Eastern and Western European countries react differently to the same stimuli. Future research should therefore focus more closely on the conditional effects of domestic factors for spatial interdependence and should account for different shades of exposure and responsiveness of individual countries (Neumayer and Plümper 2012). Similarly, more attention should be paid for other fields of social policy where diffusion might be conditional on other causal mechanisms, yielding different patterns.

Acknowledgements

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References


International Monetary Fund. *Direction of Trade Statistics*. CD-ROM. Washington, DC.


Appendix

Table A1: Summary statistics dependent and independent variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
<th>Obs.</th>
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</thead>
<tbody>
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<td><strong>UE avg. replacement rate</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
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<td>15.46</td>
<td>14.71</td>
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<td>12.58</td>
<td>32.35</td>
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<td></td>
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<td></td>
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<td>0.00</td>
<td>20.73</td>
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<td>0.00</td>
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<td><strong>Unemployment rate</strong></td>
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<tr>
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<td>1.70</td>
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</tr>
<tr>
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<td>East</td>
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<tr>
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<td>West</td>
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Table A2: Regression results of interaction diffusion and veto players in Europe, 1995-2007

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<td>CEE</td>
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<td>Veto players_{t-1}</td>
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<td>0.937</td>
<td>0.470</td>
<td>1.768***</td>
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<td></td>
<td>(4.246)</td>
<td>(1.549)</td>
<td>(0.801)</td>
<td>(0.534)</td>
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<tr>
<td>Unemployment_{t-1}</td>
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<td>0.005</td>
<td>-0.067</td>
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<td>(0.301)</td>
<td>(0.212)</td>
<td>(0.346)</td>
<td>(0.235)</td>
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<tr>
<td>GDP p.c.a_{t-1}</td>
<td>0.001**</td>
<td>-0.000</td>
<td>0.001*</td>
<td>0.000</td>
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<td>(0.346)</td>
<td>(0.295)</td>
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<td>(0.291)</td>
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<td>(0.224)</td>
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<td>-0.025**</td>
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<td>(0.009)</td>
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Level of significance: * p<0.05, ** p<0.01, *** p<0.001; period fixed effects included (not reported); first line are unstandardized regression coefficients with corrected standard errors in parentheses.
Table A3: Regression results of interaction diffusion and growth in Europe, 1995-2007

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<th>(4) Neighbors</th>
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<td>CEE</td>
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<td>Veto players_{t-1}</td>
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<td>(0.226)</td>
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<td>Unemployment_{t-1}</td>
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<td>(0.225)</td>
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<td>-0.000</td>
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<td>(0.000)</td>
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<tr>
<td>Growth_{t-1}</td>
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<td>(7.196)</td>
<td>(4.889)</td>
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<td>Diffusion trade</td>
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<td>(1.033)</td>
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<td>(0.082)</td>
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<td>Diffusion neighbors</td>
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<td>Diffusion neighbors*Growth</td>
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<td>Adj. R-squared</td>
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Level of significance: * p<0.05, ** p<0.01, *** p<0.001; period fixed effects included (not reported); first line are unstandardized regression coefficients with corrected standard errors in parentheses