Diffusion of Compliance in the 'Race towards Brussels?'

A Spatial Approach to EU Accession Conditionality

TOBIAS BÖHMELT and TINA FREYBURG

Previous studies identified several determinants that help explaining candidate states' compliance with EU accession conditionality. However, one influence has largely been neglected so far: states' spatial dependency. Do we observe diffusion to the extent that states' interlinkages allow us to assess their compliance with the acquis communautaire? *Are candidate states more – or perhaps even less – likely to comply with EU law when other candidates do? The following paper seeks to address these questions. By building on existing research on policy diffusion, the authors develop a theoretical framework for studying candidates' compliance with EU law over the accession process according to their spatial dependence. The theoretical argument focuses on 'competitive learning' and is tested with quantitative data. The results suggest that candidates' levels of compliance are indeed driven by spatial interlinkages; however, free riding seems more prevalent than enhanced compliance.*

Keywords: *acquis communautaire; compliance; enlargement; European Union; diffusion; spatial dependencies*

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Correspondence Address: tbohmelt@essex.ac.uk; t.freyburg@warwick.ac.uk

At the 1999 summit in Helsinki, the European Council introduced the 'regatta principle' to the enlargement process. According to this approach, each candidate shall enter the European Union (EU) as soon they have met the accession criteria individually (rather than in groups) and have proven their capacity to comply with the body of accumulated EU law, the *acquis communautaire.* This principle made it essentially possible for any candidate to complete the negotiations for EU membership ahead of – and without being held back by – other states. From the EU's perspective, the rationale behind the regatta principle is that, as in a boat race, all candidate countries would compete with each other in order to be frontrunners in obtaining EU membership. It thus seems that the EU expected the compliance behaviour of individual candidate states to be influenced by the behaviour of its competitors.

Strikingly, however, the existing literature treats compliance with the EU *acquis* as an individual process and neglects potential relational effects of candidate countries' in the 'race towards Brussels.' The previous work rather emphasizes domestic and system-level determinants for explaining candidate states' compliance with EU accession conditionality (e.g. Mattli and Plümper 2002; Hille and Knill 2006; Toshkov 2008; Schimmelfennig and Trauner 2009).[1] Arguably, the most prominent theoretical framework in this context is given by Schimmelfennig and Sedelmeier's (2004; 2005) 'external incentive model,' which states that governments comply with EU law if the calculated benefits of membership exceed the anticipated political costs of compliance that are associated with the accession criteria.[2] Therefore, states might deliberately choose not to comply on the basis of their cost-benefit calculations. Eventually, defection is rational, and monitoring as well as enforcement are required to deter defection and compel compliance (Tallberg 2002). A number of qualitative and quantitative studies corroborate that the credibility of accession conditionality and the size of the political adoption costs anticipated by the target governments have indeed been paramount for effective candidate compliance (e.g. Mattli and Plümper 2002; Kubicek 2003;

Jacoby 2004; Kelley 2004; Pridham 2005; Vachudova 2005; Schimmelfennig *et al.* 2006; Steunenberg and Dimitrova 2007; Schimmelfennig and Scholtz 2008; Böhmelt and Freyburg 2013).

While we acknowledge the importance of this literature, we also suggest that one potentially crucial determinant, which gained attention in the broader political science literature, has largely been neglected so far: states' spatial dependency. With this article, we contend that a latent shortcoming common for current research is the assumption that the degree of candidates' compliance with EU law is independent from other states' efforts, although it might be highly interdependent. Consequently, previous models that assess candidate countries' compliance with the *acquis* may not offer sufficiently accurate representations of the actual process of accession conditionality. We seek to address this by exploring the extent to which candidate states' spatial interlinkages can explain variance in their compliance with the EU accession criteria. To this end, we intend to complement the literature on candidates' pre-accession compliance by drawing on studies of policy diffusion (for recent overviews, see Gilardi 2010; 2012; Graham *et al.* 2013).

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Figure 1 here

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Figure 1 underlines why it seems worth studying spatial dependence in the context of the EU accession process. This graph outlines the patterns of four candidate states' (logged) compliance levels with the *acquis* between 1998 and 2003 according to the data we use for our analysis below. It is shown that all four countries did improve their compliance with EU law over the time period. Yet, the three Baltic States – Estonia, Latvia, and Lithuania – have compliance patterns that appear somewhat similar, both in terms of direction and growth: while Estonia's and Latvia's compliance curves are virtually identical in 1998-2003,

Lithuania seems to lag behind in the early years, but caught up with Estonia and Latvia as of 2001; afterwards, the compliance curves of all three Baltic States almost fully converge. However, these patterns differ from Turkey that has a substantially lower level of EU compliance and is far from catching up with the Baltics in 1998-2003. Despite the descriptive and selective nature of Figure 1, it provides some initial support for the claim that spatial interlinkages may matter, given the contiguous nature of the three Baltic nations that stands in stark contrast to Turkey's geographical remoteness.

However, not only do we need more systematic empirical work than it is provided by Figure 1, but also more rigorous theoretical efforts to assess whether states' compliance efforts with EU law are driven by spatial dependencies or not. Based on the mechanisms of policy diffusion (see Elkins and Simmons 2005; Holzinger and Knill 2005; Simmons *et al.* 2006; Gilardi 2010; 2012), we develop the argument that candidates compete with and learn from each other, i.e. there is competitive learning (Ward and John 2013) in the context of EU accession. That is, countries aspiring to join the EU may actually be influenced by the compliance behaviour of other candidates – positively (enhanced compliance) or negatively (free riding). In sum, if connectivity (dependence or linkage) between countries is given, we may observe a diffusion effect to the extent that states comply with EU law more strongly if other states comply as well (positive effect) or that states actually free ride on the compliance efforts of others (negative effect). Yet, 'space is more than geography' (Beck *et al.* 2006) and geographical clustering can hardly shed light on which diffusion mechanisms are at play (Ward and John 2013: 14; see also Graham *et al.* 2013: 694). We thus follow previous work and model the spatial dependence inherent in this competitive learning mechanism via three networks: membership in peer groups (i.e. joint accession rounds), information networks (i.e. co-membership in intergovernmental organizations, IGOs), and trade partnerships (i.e. sum of imports and exports between two countries). In order to rule out the possibility of common

exposure, i.e. spatial clustering that is not driven by states' interdependence, we also control for a number of relevant alternative influences such as 'exogenous-external conditions or common shocks and spatially correlated unit level factors' (Franzese and Hays 2007: 142).

The next section outlines the theoretical argument. We contend that, in view of the uncertainty about many parameters in the accession process (e.g. Böhmelt and Freyburg 2013; Grabbe 2002), a candidate might increase compliance levels if other countries show high levels of compliance with EU law as well *and* if strong spatial interlinkages between these states do exist. However, free riding on the compliance behaviour of others may be an equally rational approach. Subsequently, we present our research design, and summarize our findings. We rely on quantitative data from Böhmelt and Freyburg (2013) that encompass both formal and practical compliance based on the Commission's annual progress reports (see also Hille and Knill 2006; Toshkov 2008; Zubek 2008; Veen and Meyer-Sahling 2012). The results highlight that candidates' levels of compliance are indeed driven by spatial dependence; however, free riding seems more prevalent than enhanced compliance. We conclude by pointing out that knowledge about the spatial interlinkages in EU politics is likely to be of great interest to policymakers and scholars alike.

Candidates' Accession Compliance, Spatial Dependency, and Policy Diffusion

Accession conditionality aims to induce formal and practical compliance with the EU accession criteria as an instrumentally and strategically calculated reaction by a target country's government. Consequently, the accession process can be described as a 'series of negotiations […] over the extent to which the applicant, at any given stage of its preparation, satisfies the conditions set by the Union and the extent to which the Union is willing to continue supporting the applicant's candidacy' (Steunenberg and Dimitrova 2007: 6). Eventually, '[a]ny new steps in the accession process depend on each country's progress in

making political and economic reforms' (European Commission 2006: 3). This emphasis on the bilateral character of the accession negotiations (between the EU and a candidate) and the consequences of each candidate's individual choices is reflected in an extensive body of research. And, in fact, the dominant 'external incentives model' (Schimmelfennig and Sedelmeier 2004; 2005) postulates only that political actors in the target countries calculate whether the rewards offered by the EU in return for compliance are worth the costs of adaptation; target governments will comply if the 'welfare or power balance is positive' (Schimmelfennig *et al*. 2003: 497). The model thus disregards any influences stemming from other candidate states' compliance behaviour.

However, as indicated above, the European Commission not only emphasizes the individual performance of each candidate, but also frames the accession procedure in terms of a 'competitive race' for membership. According to this regatta principle, a candidate country may be admitted individually to the EU as soon as they satisfy the accession criteria. The EU expected this principle to create stimulating, constructive competition among the accession candidates over joining the EU as soon as possible. Eventually, '[t]he goal of membership sets a framework for the government's agenda in many areas, since the candidates are racing against one another to move forward: it is not just the EU applying pressure, but competition between applicants which encourages candidates to seek to comply' (Grabbe 2001: 1015). Whether such competition among the candidate countries occurred, and whether there is a positive (i.e. enhanced compliance) or even a negative (i.e. free riding) impact on the compliance with the EU *acquis* criterion, has not been explored empirically via systematic analyses, though.

If empirical studies on EU leverage in the enlargement context considered the potential influence of other candidate states' behaviour, they did so only indirectly. Schimmelfennig and Sedelmeier (2004: 666; see also Schimmelfennig 2008), for instance, acknowledge that

the EU might undermine the credibility of its own conditionality if it admits candidates on different levels of preparedness. Thus, at the very least, it is acknowledged that candidate countries might compare their own performance with others and adapt their behaviour accordingly. In this paper, we explicitly focus on the potential effect of influences exerted by candidates on other states' degree of compliance, while controlling for a number of relevant alternative influences such as 'exogenous-external conditions or common shocks and spatially correlated unit level factors' (Franzese and Hays 2007: 142). In doing so, we complement the work on EU conditionality with insights about policy diffusion.

Essentially, the literature suggests four different causal mechanisms for how diffusion might occur: coercion, competition, learning, and emulation (e.g. Dolowitz and Marsh 2000; Most and Starr 1990; Elkins and Simmons 2005; Simmons *et al.* 2006; Franzese and Hays 2008; Gilardi 2010; 2012; Ward and Cao 2012; Graham *et al.* 2013: 690f). Coercion is the mechanism that may come closest to the common understanding of how conditionality works: one external actor such as the EU can force or exert pressure on another actor (e.g. a candidate) to adopt certain policies (Börzel and Risse 2012). While Gilardi (2012; see also Dimitrova 2002; Grabbe 2003) cites EU conditionality as prominent example for how an external actor can pressure candidate states to comply with specific requirements of the *acquis*, Börzel and Risse (2012) argue that the EU does not intervene coercively to change candidates' preferences; instead, although the costs of forgoing EU membership may be high, accession countries still have the option not to accept the EU's conditions. Either way, coercion sees EU as the rule-setting agent and an accession country as the recipient. As such, the coercion mechanism does not account for potential influences exerted by a candidate country's 'competitors' and, in what follows, we centre on the three remaining mechanisms of policy diffusion: learning, emulation, and competition.

Due to uncertainty about the actual consequences of state behaviour (compliance or non-compliance with EU requirements), candidates might rely on 'the experience of other countries to estimate the likely consequences of policy change' (i.e. learning) (Gilardi 2012: 463); they could also copy the majority behaviour of other countries inferring from 'the sheer number of followers […] that this might be the best thing to do' (i.e. emulation) (Holzinger and Knill 2005: 784; Gilardi 2012: 466f); or they 'anticipate or react to the behaviour of other countries in order to attract or retain' the benefits associated with accession (i.e. competition) (Gilardi 2012: 462).[3] As will be elaborated below, all three mechanisms can lead to positive (enhanced compliance) or negative (free riding) outcomes in state behaviour, and they might even interact.

In detail, learning is a rational process in which policymakers, 'confronted with the uncertainty of difficult policy decisions […] gain information simply by observing the results of particular policies in other countries' (Meseguer 2005: 72). In consequence, they 'look to others for policies and rules that effectively solved similar problems elsewhere and are transferable into their domestic context' (Börzel and Risse 2012: 9). EU accession conditions have been criticized for not prescribing clear guidelines for institutional reform and, thus, creating uncertainties for candidate countries that are (nonetheless) willing to achieve compliance with these conditions (Brusis 2005: 297; Kochenov 2004; Grabbe 2002). The specific meaning of the conditions may become clearer, however, through pre-accession instruments such as functional cooperation that not only include the exchange of best practices between governmental representatives from the candidate states and the EU (member states), but also between candidates themselves. Numerous policy-specific and comprehensive intergovernmental networks have emerged that establish cooperative structures between accession countries in order to address joint problems such as organized crime, border management, or environmental pollution with 'the EU *acquis communautaire*

as a frame of reference' (Lavenex 2011: 381). There is, for example, evidence for peer-to-peer learning among candidates from the public health sector where a scattered 'health *acquis*' and abstract core policy objectives make compliance even more difficult (see Busse 2002). Experts from accession countries are said to have gained knowledge, experience, and skills through active cooperation: 'particularly the increasing exchange of information between candidate countries themselves was mentioned as being beneficial' (Pikano 2000: 49).

According to the second mechanism of diffusion, emulation, compliance is driven through a process of observation and inference in situations of uncertainty. On one hand, a candidate would comply with EU requirements simply because a critical number of other candidates already do so. Informational 'herding' arises in situations where agents observe the actions of others, derive information from them, and then, seemingly disregarding their own information, pursue the majority action (Keynes 1930; see also Gilardi 2012: 467). A government may thus follow the 'complying crowd,' because it thinks that these other states are better informed and have analysed the situation more carefully; fearing to 'be left behind' (Holzinger and Knill 2005: 785), that state might thus conclude that compliance is attractive. On the other hand, individual governments might be 'pulled' into compliance as they want to demonstrate that they conform to the rules set by the community to which they want to belong and whose esteem they care about, even if initially they considered compliance as unattractive (Finnemore and Sikkink 1998; Holzinger and Knill 2005: 784; Gilardi 2012: 467). That is, the more candidates comply, the more compliance becomes the appropriate behaviour and the more difficult it is for the remaining states to defect. In the context of EU enlargement, the trend towards lowering corporate income-tax rates is an example of 'emulation by one post-communist government of another' (Appel and Orenstein 2013: 126). More than a dozen candidates adopted single income-tax rates at roughly the same time as

EU membership negotiations began: 'in some cases, tax reform was […] implemented because policymakers want[ed] to mimic success in other nations' (Mitchell 2005).

This last example also points to competition between the countries, the third mechanism of diffusion. As emphasized by Mitchell (2005), it may not only have been emulation that had a tax-lowering effect: 'in many cases, governments enact[ed] the flat tax [also] because they fear[ed] that productive resources will leave for destinations where taxes are lower.' However, while the EU does not demand flat taxes as a requirement for accession, the 'flat tax has commonly – almost universally – been adopted by new governments anxious to signal a fundamental regime shift, towards more market-oriented policies' (Keen *et al.* 2008: 37), as requested by the EU's economic criteria.[4] From the perspective of EU accession conditionality, competition is thus likely to emerge from the EU's declared regatta policy to grant accession to each applicant individually based on their reform performance. According to this strategy, the EU can withhold the reward of membership if a government does not comply with the accession conditions. '[N]on-compliant states are shunned by the […] European community, excluded from external resources, and left behind in the "regatta" to membership – with, however, the promise of being welcome once the political conditions are in place' (Schimmelfennig 2007: 127). Anecdotal evidence suggests that this policy had the desired effect. In the words of the former Hungarian foreign minister, Laszlo Kovacs, '[t]he large number of applicants results in a kind of competition, even a kind of rivalry', with the five 'frontrunners' (Poland, Hungary, the Czech Republic, Slovenia, Estonia, and Cyprus) 'jockeying for pole position' (Geoghegan 1998). Eventually, this competition among candidate countries may result in a 'race to the top,' i.e. a race towards better compliance with EU accession criteria, thus enhancing the effectiveness of conditionality. This expectation is supported, for instance, by the rivalry between Bulgaria and Rumania, which competed 'to avoid the red light on EU accession' (Agence France Presse 2006).

While the outlined dominant diffusion mechanisms are commonly treated separately, recent research (Ward and John 2013; Graham *et al.* 2013) suggests that actually a combination or interaction of learning/emulation and competition is usually at work. Specifically, states clearly compete with each other over the course of the accession process, but it is also likely that they learn from and emulate the behaviour of others at the same time: 'governments may *learn* about how to *compete* with one another better' (Graham *et al.* 2013: 695). Ward and John (2013: 3) therefore claim that 'competition and learning are likely to be intimately related to each other' and introduce the joint mechanism of 'competitive learning.' By learning from what other states – or competitors – do over the course of their application for EU membership, states might adjust their behaviour and compete more effectively and efficiently. Given that it is relatively difficult to distinguish between the specific diffusion mechanisms in quantitative research (see Ward and Cao 2012) and since we believe that one diffusion mechanism does not work in isolation from the others, the discussed mechanisms are 'complements rather than substitutes' (Graham *et al.* 2013: 695). It seems plausible that it is primarily competitive learning that influences states in the context of the EU accession process – if spatial dependence does exist.

In any case, in terms of the outcome, our discussion of the dominant diffusion mechanisms so far suggests an enhancing effect on compliance through EU conditionality. In light of the nature of the accession process and, particularly, the regatta principle as an inherent element of EU accession conditionality, we argue that contagion effects are likely to be given for candidate countries and their level of compliance with EU law. The crucial point is, however, that strong spatial dependencies or links between candidate states must exist so that compliance behaviour can diffuse, because these links facilitate that actors are being influenced by others (Most and Starr 1990; Pikano 2000: 49; Elkins and Simmons 2005; Dorussen and Ward 2008; Gilardi 2010; 2012: 460f; Ward and Cao 2012). If other countries

show high levels of compliance with EU law, mechanisms of diffusion may induce that a specific state in question also increases compliance if spatial interlinkages between these countries do exist. Against this background, we hypothesize 'positive' outcomes in the form of enhanced compliance: a country's compliance is subject to upward pressure if other – spatially linked – candidates have high compliance levels.

Yet, we might also observe 'negative' effects of spatial dependency between the candidate states as they allow for free riding on the compliance behaviour of others (see Ward and John 2013: 4). Testimonies of accession negotiators and coordinators point out that enlargement decisions have been considered for a group of countries as a whole such as the Baltic States or the Visegrad countries rather than for each country individually (see Vassilou 2007). Arguably, from the perspective of the Commission, there are some political and economic arguments in favour of such a convoy approach based on the formation of accession groups; in particular the 'picking-and-choosing' implied by the regatta model can 'cause considerable friction among the delayed candidates and break with the EU's accession tradition' (König and Bräuninger 2003: 273). First, for historical reasons, it appears to be inappropriate to admit certain countries but not others if one wants to prevent political fall-out. In the case of Poland, for instance, for many member states, in particular Germany, its special historical and political significance for Europe argued in favour of joining the EU at the earliest possible juncture 'despite uncertain progress in many areas' (Christoffersen 2007: 31). Second, the recently admitted (i.e. new) member states would be allowed to co-deciding on the accession of the countries following them, which is likely to create political dispute among the accession countries. Third, successive admission is more costly for the EU institutions and can create considerable friction in the institutional working routines. Finally, the formation of *de facto* accession groups was expected to enhance the positive enlargement dynamics inherent in a regatta as individual candidate countries seek to become member of the earliest

possible accession convoy. Hence, a small convoy-scenario appears to be the more realistic alternative to the strict implementation of the regatta principle. It permits particular groups to join the EU when there is a sufficiently large number of candidates who show good compliance. And, indeed, anecdotal evidence supports that only parts of the regatta principle have been enforced and a 'wave approach' was implemented instead (Christoffersen 2007: 32-33).

While the rationale behind forming accession groups was to avoid 'leaving somebody behind, awaiting another 'wave' in an uncertain future,' as this 'could take away the pressure for reform and modernization in the countries left on the shore' (Christoffersen 2007: 32), the opposite effect might have occurred. Theoretically, within a group or cluster, a country might be better-off by free riding on the compliance record of others once group membership is guaranteed and, consequently, the constructive competition pressure diminishes. That is, when the regatta principle is not fully enforced and states are granted membership in the EU because they are part of a common accession round, even if complete compliance with the *acquis* is not given, states have the incentive to free-ride on the compliance efforts of their competitors. Free riding occurs 'when policy changes in one jurisdiction create incentives for governments on others to adopt change in the opposite direction' (Franzese and Hays 2006: 170). This might be for the most part a problem when compliance is not fully enforced (Schimmelfennig and Sedelmeier 2004; Schimmelfennig 2008) and the EU grants membership even when compliance with the acquis is lacking in some chapters (see Böhmelt and Freyburg 2013). Too much compliance leads to a first-move disadvantage and defection seems rational in light of enhanced compliance of other states (see also Schimmelfennig and Sedelmeier 2004; 2005). Franzese and Hays (2008: 746) refer to this as 'strategic delay' or 'inaction.' In brief, a high level of compliance with EU law in one candidate state does not necessarily lead to higher compliance efforts in another (Graham et al. 2013: 691). Instead,

we hypothesize 'negative' outcomes in the form of free-riding, as follows: a country's compliance is subject to downward pressure if other – spatially linked – candidates in the same accession group pursue high compliance levels.

In sum, we discussed the prominent diffusion mechanisms in the literature and paid particular attention to learning/emulation, competition, and competitive learning. The expectations based on these mechanisms are twofold. On one hand, we might expect policy convergence and enhanced compliance under the umbrella of the regatta principle. On the other hand, we could also observe negative outcomes in the form of free riding in the context of the wave approach. It is thus ultimately an empirical question whether spatial dependence and diffusion influence states over the course of the EU accession process, and with what effect.

Research Design

To test the impact of spatial dependence on countries' compliance with EU law over the accession process, we rely on Böhmelt and Freyburg's (2013) time-series cross-section data that comprise information on all states that belonged to the 2004 or 2007 accession rounds of the EU, or were recognized as candidate states by the end of 2012. These data thus include 16 countries in total (i.e. Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Malta, Montenegro, Poland, Romania, Slovakia, Slovenia, and Turkey), with the country-year as the unit of analysis.[5] The temporal domain covers the time period from 1998 to 2009, but with varying years under study by country. The first year in the sample coincides with data availability for the dependent variable described below, i.e. the official start of the enlargement monitoring process and, hence, the first reports on a country's degree of compliance with EU law; the last year for a country in the sample is determined by the end of the accession process and, thus, membership in the EU.[6]

Consequently, for example, we have data for Turkey for every year in 1998-2009, while Poland is only covered in 1998-2003. The final data set consists of 101 observations.

Dependent Variable

To quantify and measure candidates' degree of compliance with the *acquis communautaire*, Böhmelt and Freyburg (2013) use the EU Commission's annual reports on each candidate's progress in aligning policies towards EU requirements. In these progress reports, the Commission explains and assesses in detail what each candidate has achieved over the last year, and identifies areas where more effort is needed. To this end, the *acquis communautaire* is divided into subject-related chapters. The list of policy areas differ by name, country, and year, while the number of negotiation chapters varies between 31 (e.g. 2004) and 34 (e.g. 2007) depending on the accession round. In addition to these policy sectors, each report offers a general evaluation for each country.[7] The Commission has been publishing these regular reports since 1998 for those countries that pertained to the 2004/2007 enlargement rounds and with varying starting years for the other candidates in the sample. The reporting stops the year the accession treaty is signed. The Commission reports have the advantage that their data quality is high and that they evaluate both formal *and* practical compliance with EU law of each candidate country on an annual basis (Hille and Knill 2006: 541f).[8]

The ultimate dependent variable, a country's (logged) degree of compliance with EU law in each policy area, is coded along the ordinal four-value assessment provided by the Commission (Böhmelt and Freyburg 2013): the value of 0 is assigned when a country does not comply with the *acquis* in a specific issue area; 1 if a country partly complies with EU laws and regulations in a specific issue area, although substantially more efforts are necessary; 2 if a country almost fully complies with the *acquis* in a specific issue area, although more efforts are necessary; and 3 when a country fully complies with EU laws and

regulations in a specific issue area. Each sector thus receives a value between 0 and 3, while higher values signify higher compliance with the *acquis communautaire*. Böhmelt and Freyburg (2013) then estimated the average degree of (logged) compliance for a country in a given year, i.e. our dependent variable, by calculating the mean value across all policy areas plus the general evaluation and taking the natural logarithm. This strategy ensures that we focus on the 'more general rather than issue or policy-specific' (Hille and Knill 2006: 535) performance of countries (see also Toshkov 2008; Veen and Meyer-Sahling 2012; Zubek 2008).

Methodology: Spatial Maximum Likelihood Regression and m-STAR Models

Given our theoretical argument and the continuous distribution of the dependent variable, spatial temporal autoregressive models or, in short, spatial lag models seem appropriate. When including a temporal next to the spatial lag, these models are defined by,

$$y_t = \phi y_{t-1} + X_t\beta + \rho W y_t + \varepsilon, \quad (1)$$

where y_t is the dependent variable, y_{t-1} signifies the temporally lagged dependent variable, X_t pertains to the set of control variables and the constant, ε is the error term, and Wy_t stands for the product of a row-standardized connectivity matrix (W) and the dependent variable (y_t), i.e. Wy_t is a spatial lag and ρ the corresponding coefficient. In terms of time-series cross-section data, the connectivity matrix W is given by a $NTxNT$ matrix (with T NxN sub-matrices along the block diagonal) with an element $w_{i,j}$ capturing the relative connectivity of unit (country) j to unit (country) i. We row standardized each connectivity matrix so that the estimated values of ρ reflect the average influence of other disputes (excluding a respective dispute under study), i.e. 'the spatial lag is a weighted average of the lagged dependent variable in other units' (Plümper and Neumayer 2010: 428f), excluding a respective country under study, with each weight specified by $w_{i,j}$, while the spatial coefficient ρ captures the strength of

interdependence. The row standardization not only induces that the spatial lag has the same metric as the dependent variable, but also that the spatial lag's coefficient is directly interpretable as the approximate strength of interdependence (Franzese and Hays 2008; Plümper and Neumayer 2010: 429f). That said, row standardization is based on the theoretical assumption that states 'exert an influence that becomes proportionally smaller the larger the number' of other states in the system (Plümper and Neumayer 2010: 430). In other words, the actors involved divide their attention across other states in proportion to perceptions of their relevance, which is governed by their spatial interlinkages.

Several estimators have been proposed for time-series cross-section spatial lag models (Elhorst 2003; Beck *et al.* 2006; Franzese and Hays 2007), e.g. spatial ordinary least squares (S-OLS), spatial maximum likelihood (S-ML), and spatial two stage least squares (S-2SLS). Franzese and Hays (2007) assess different specification and estimation choices both in terms of their asymptotic properties and small sample performance. While the general problem with S-OLS models is that simultaneity bias is introduced due to the inclusion of the spatial lag at time *t* (see also Franzese and Hays 2008), Franzese and Hays (2007) show that the S-ML does not require a temporally lagged spatial lag and directly addresses simultaneity bias. They further conclude that 'S-ML seems to offer weakly dominant efficiency and generally solid performance in unbiasedness and SE [standard error] accuracy' as compared to other estimation procedures (Franzese and Hays 2007: 163; see also Franzese and Hays 2008; Ward and Cao 2012). We thus employ S-ML regression models.

We also follow Franzese and Hays (2006; 2007; 2008) by including a temporally lagged dependent variable (LDV), country fixed effects, and period (year) dummies. The temporally LDV captures country-specific time dependencies in terms of compliance with EU law, while the country fixed effects control for idiosyncratic national path dependencies in compliance patterns and other additive forms of cross-sectional heterogeneity. For example, membership

credibility not only varies across time or stages in the negotiation process, but also by country (Toshkov 2008: 380). Candidate states are not homogeneous, and their compliance patterns may well depend on other factors than spatial interdependencies, which pertain to countries themselves, but are unobserved (see Schimmelfennig and Sedelmeier 2004; 2005). Note, however, that many of our control variables presented below are almost time invariant. Modelling unit-specific heterogeneity via country fixed effects could then lead to the inefficient estimation of such rarely changing variables (Plümper and Troeger 2007). Finally, the period dummies control for temporal shocks that are common for all states in a given year. For instance, we expect that it makes a difference whether a 'pro-enlargement' or an 'enlargement-sceptical' country holds the presidency of the EU Council (Tallberg 2004: 1000). In other words, by considering a temporally LDV, country fixed effects, and year dummies, we purse an estimation strategy that allows distinguishing spatial interdependence from other forms of spatial correlation caused by 'exogenous-external conditions or common shocks and spatially correlated unit level factors' (Franzese and Hays 2007: 142). Hence, we control for possible common-shock effects and other additive influences due to particularities of states or time in order to distinguish those sorts of effects from contagion. As Franzese and Hays (2006: 176) state 'country and year dummies serve as a powerfully conservative way to account for almost any sort of outside shock or spatially correlated domestic factor.'

We introduce three relevant spatial lags separately into our models as including more than one spatial lag leads to 'biased estimates of spatial effects as the single lag included partly acts as a proxy for others' (Ward and Cao 2012: 1091). But we also present results for a multiparametric spatiotemporal autoregressive (m-STAR) model (Hays *et al.* 2010). This m-STAR model allows for a simultaneous inclusion of all spatial lags, while controlling for the case where connectivity, i.e. the selection into a network, is endogenous to our dependent variable of compliance. This latter point is particularly important for the 'peer group' spatial

lag to which we turn now.

Core Explanatory Variables: Spatial Lags

Higher interdependence should be given for states that are more strongly connected to each other. For the operationalization of the key explanatory variables, we rely on three different spatial lags (see also, e.g. Franzese and Hays 2008; 2007; Ward and Gleditsch 2008; Beck *et al.* 2006). While these three spatial variables capture the same contagion logic, they consider different potential influences by focusing on a variety of channels through which candidate states might be embedded in.

First, states strongly differ in their likelihood of obtaining membership (Böhmelt and Freyburg 2013) and it thus seems plausible that they are more likely to learn from, compete with, or competitively learn from their peers. In contrast, candidate states are less affected by and unlikely to compete much with the compliance patterns of countries outside their peer group (Neumayer *et al.* 2014). We thus capture states' interlinkages by their membership in peer groups, which are comprised of those countries belonging to the same negotiation round. In light of the discussion above, this spatial lag closely resembles the 'competitive learning' mechanism. The elements $w_{i,j}$ of this spatial lag's connectivity matrix receive a value of 1 if two states belong to the same peer group and 0 otherwise. Given the information in Böhmelt and Freyburg (2013: 256), we identified three peer groups: a first group of states for which the negotiations started in 1998; a second group for which the negotiations started in 2000; and a third group for which the negotiations started in 2005. Finally, countries in the data for which the start of negotiations was pending, i.e. Macedonia and Montenegro, are not assigned to any peer group.

Second, we expect candidate countries that are members of the same information network to influence each other's compliance behaviour. In view of the vast network of often informal

and unstructured fora for cooperation in the pre-accession context and acknowledging the fact that policymakers from candidate countries also meet and exchange experience outside EU-sponsored networks, we consider membership in intergovernmental information networks in general. Therefore, each element $w_{i,j}$ of the underlying connectivity matrix for this third spatial lag is the count or number of states' common memberships in IGOs. The data on IGOs are taken from Pevehouse *et al.* (2004). We expect higher levels of policy interdependence for states that share (more) memberships in the same intergovernmental organizations (IGOs). In line with the previous literature, (e.g. Simmons and Elkins 2004; Holzinger and Knill 2005; Dorussen and Ward 2008; Ward and Cao 2012; Böhmelt *et al.* 2014), information networks as captured by this IGO spatial lag pertain predominantly to the diffusion mechanism of learning.

Finally, there are countries' bilateral trade flows, with an element $w_{i,j}$ of the underlying connectivity matrix defined as the total trade flows from *i* to *j* plus total trade flows from *j* to *i* as reported in the data by Barbieri *et al.* (2009). Ward and Cao (2012: 1086; emphasis added) claim that a state is 'likely to *learn* more from its major trading partners.' However, Holzinger and Knill (2005: 793) claim that it is also *competition* that characterizes the relationship between major trading parties due to the competitiveness of domestic industries; that is, 'the more exposed a country is to competitive pressures following on from high economic integration (emerging from its dependence on the trade of goods, capital, and service with other countries)' (Holzinger and Knill 2005: 789). Eventually, this spatial lag based on dyadic trade flows is (more) likely to capture competition influences, although pure informational learning or competitive learning could be influential as well.

Control Variables: Alternative Influences of Countries' Compliance and Spatial Correlation

We consider a number of control variables, which may affect our dependent variable. In

combination with the period and country dummies referred to above, this approach ensures that other sources of spatial correlation such as 'exogenous-external conditions or common shocks and spatially correlated unit level factors' (Franzese and Hays 2007: 142) are taken into account and avoids finding spurious correlations. Hence, the full set of control variables makes it more credible that contagion 'cannot be dismissed as a mere product of a clustering in similar [state] characteristics' (Buhaug and Gleditsch 2008: 230; see also Plümper and Neumayer 2010: 427).

We include the key explanatory factors suggested by the three approaches in the compliance literature (see Börzel *et al.* 2010), notably adoption costs (enforcement approach), administrative capacity (management approach), and support for EU membership (legitimacy approach). First, states only comply with EU law if the desired benefits are expected to exceed the anticipated costs of compliance (Schimmelfennig and Sedelmeier 2004; 2005). To measure the expected domestic costs of adoption, we include a state's level of political and economic liberalisation. More democratic and economically liberalized countries are more likely to fulfil the demands made by, and the obligations from, EU law. For political liberalisation, we use a variable from the Polity IV data (Marshall and Jaggers 2002) that theoretically ranges from -10 (full autocracy) to +10 (full democracy). For economic liberalisation, we take the Heritage Foundation's Index of Economic Freedom (Miller and Holmes 2011), which uses a scale from 0 (minimum freedom) to 100 (maximum freedom). We lag both variables by one year in order to address endogeneity concerns.

Second, the management approach in compliance research points to the possibility of involuntary non-compliance: '[e]ven if states are willing to fully act in accordance with international norms, they are prevented from doing so if the preconditions that enable states to comply are absent' (Börzel *et al.* 2010: 1369). Thus, existing studies frequently emphasize the important role of a country's administrative capacity to adopt and implement EU law (e.g.

Hille and Knill 2006: 544; Toshkov 2008; Schimmelfennig and Trauner 2009: 6). We measure political capacities and constraints via the following items. First, there is the likelihood of policy change in a country in a given year as operationalized by Henisz's (2002) Polcon III index. This variable ranges between 0.27 and 0.67 in our sample, with higher values signifying a higher number of veto players at the domestic institutional setting. Furthermore, in order to capture a bureaucracy's financial capabilities, we use the World Bank Development Indicators that comprise data for a government's final consumption expenditure and GDP *per capita*, respectively. Both items are measured in current US Dollars, logged and lagged by one year. Third, the strength of a country's bureaucracy is measured by a World Bank index (Kaufmann *et al.* 2010) that 'combines analysts' ratings of the quality of the bureaucracy, including the independence of the civil service from political pressure, political stability, bureaucratic accountability and transparency as well as the extent to which administrative activities are based upon legal rules and proceedings in the candidate countries' (Hille and Knill 2006: 544). We lag this item by one year as well.

Third, Börzel *et al.* (2010: 1371) highlight the importance of the legitimacy of the rules to be adopted: 'rules are complied with […], because the rules are set by institutions, which enjoy a high degree of support.' Based on this reasoning, we control for a candidate's government preferences towards EU membership. We follow the operationalization in Hille and Knill (2006) in order to construct a measure that aggregates a government's position towards EU membership for our country-years (see also Benoit and Laver 2006).[9] Higher values of this item signify a more positive attitude towards EU membership and, thus, we expect it to be positively correlated with our dependent variable.

Finally, we incorporate a variable counting a state's membership in IGOs. As for the second spatial lag, the data are taken from Pevehouse *et al.* (2004). The reason for this last control is twofold. On one hand, Bernauer *et al.* (2010: 516) claim that 'being a member of

international organizations in general might lead governments to value the more generic benefits of international cooperation.' An increasing integration in the network of IGOs could thus induce higher compliance with the *acquis* as well. On the other hand, this control guards against the possibility of some common, additive effect of IGOs that is different from the contagion mechanism we seek to address with the IGO spatial lag.

These control covariates and their operationalization follow earlier (quantitative) studies that have a similar focus as our work (Mattli and Plümper 2002; Hille and Knill 2006; Toshkov 2008; Sedelmeier 2012; Spendzharova and Vachudova 2012). Since our S-ML and m-STAR estimators rely on a maximization routine that does not allow for missing values, we linearly inter- and extrapolated the data whenever applicable and substituted other missing values by a specific variable's mean value (see Honaker and King 2010). Note, however, that less than ten observations for only four control variables (*economic liberalisation*, *government position*, *political constraints,* and *IGO membership*) are affected by this. Our results discussed below remain robust to either leaving out these three variables or dropping all controls apart from the fixed effects and the temporally lagged dependent variable. Table 1 summarizes the descriptive statistics of the variables we discussed.

Table 1 here

Empirical Results

Table 2 summarizes four models either with one spatial lag introduced separately in each model or the m-STAR estimation; although fixed effects are included in all models, we omit them from the presentation. The table entries pertain to coefficient estimates. Due to the inclusion of spatially and temporally lagged variables, however, they can largely not be

interpreted directly. First, because of the temporally lagged dependent variable in the models, the coefficient estimates only give an overview of the short-term effect, i.e. the impact of a control variable or a spatial lag in a current year. In order to estimate the long-term impact, i.e. the effect that feeds forward into the future, we must take into account the coefficient of the temporally lagged dependent variable by (Plümper *et al.* 2005: 336),

$$\sum_{t=1}^{T}\left(\rho\sum_{j}w_{ijt}y_{jt}\right)\beta_0^{T-1}, \tag{2}$$

'where β_0 is the coefficient of the lagged dependent variable, T is the number of periods with t denoting a single period' (Plümper and Neumayer 2010: 425), and i and j pertain to units (states in a dyad). Accordingly, we estimate asymptotic long-term effects (in addition to short-term effects) for the spatial lag variables and summarize them in the graphs below.[10]

Second, when including a spatial lag into a model, coefficients provide information about the pre-dynamic impulses from the explanatory variables (excluding the spatial coefficient ρ, though), i.e. 'the pre- [spatial] interdependence feedback impetus to outcomes from other regressors' (Hays *et al.* 2010: 409). In order to fully understand the effect of the explanatory variables (excluding ρ) when considering a spatial lag, one has to estimate spatio-temporal multipliers, which allow the 'expression of estimated responses of the dependent variable across all units' (Hays *et al.* 2010: 409). Given our focus on the spatial lags and since most of the controls are statistically insignificant, we do not estimate these 'equilibrium effects' of the control covariates here (Hays *et al.* 2010).

Table 2 here

When briefly discussing the control items, *IGO membership* is the only variable that is significant at conventional levels independent from model specifications. Hardly any of the

other controls actually has a significant impact on candidate states' compliance with EU law. While this may come across surprising at first, recall that the models include fixed effects. Hence, the poor performance of the control variables can be explained by the fact that such models lack the ability to make inferences about time-invariant or slow-moving variables, because fixed effects soak up most of the explanatory power of slowly changing variables and their coefficients are either not identified or difficult to estimate with precision (Beck 2001: 285; Plümper and Troeger 2007). This also mirrors the findings in Böhmelt and Freyburg's (2013: 264) Model 4.

Coming to our core variables of interest, i.e. the spatial lag variables, a positive and significant value for a spatial lag's ρ suggests clustering of the dependent variable on the spatial lag concerned, while negative and significant values pertain to dispersion, e.g. a higher compliance levels of other states is actually associated with a lower compliance of the state in question. In line with the free-riding arguments in the literature, we obtain negative and significant estimates for the spatial lags in Models 1-3, where we introduce our core variables separately. The joint estimation of all spatial lags in Model 4 reveals that only one spatial lag ($\mathbf{Wy}^{\text{Trade Flows}}$) as a positive effect, which nonetheless is virtually identical to 0.

Figure 2 here

Figures 2 and 3 reveal more substantive effects for the spatial lags. Specifically, the short-term spatial effect of the $\mathbf{W}^{\text{Peer group}}$ estimations is about -0.23 (Model 1; Model 4: -0.03), whereas the asymptotic long-term spatial effect is about -0.49 (Model 1; Model 4: -0.06). This implies, for instance, that a candidate state's *degree of compliance (log)* would be 0.23 (Model 1; Model 4: 0.03) points lower in the short run, if its peer group members had an average (log) compliance score of 0.80 (maximum possible score in the data set) compared

with a neighbour average of 0.44. With regards to $\mathbf{W}^{IGOs}$, the short-term spatial effect is -0.58 (Model 2; Model 4: -0.0013), while the asymptotic long-term spatial effect is considerably higher (-1.17 in Model 2: Model 4: -0.0025). Substantively, this means, for example, that that a candidate state's *degree of compliance (log)* would be 1.17 (Model 2; Model 4: 0.0025) points lower in the long run, if its peer group members had an average (log) compliance score of 0.80 (maximum possible score in the data set) compared with a neighbour average of 0.44. Finally, $\mathbf{W}^{Trade\ flows}$ displays a short-run effect of -0.12 (Model 3; Model 4: 0.000035), while its long-run estimate lies at about -0.27 (Model 3; Model 4: 0.000026). Ultimately, these results lend support to the following statements. First, countries that are linked via membership in the same peer group negatively influence each other's levels of compliance with EU laws. Second, states' compliance patterns are also negatively affected by other countries' compliance efforts if they are linked via mutual memberships in IGOs or trade relationships. In sum, free riding seems more dominant than enhanced compliance – regardless of the spatial lag we focus on.

Figure 3 here

Conclusion

A large and growing literature on the effectiveness of EU accession conditionality treats the relationship as a bilateral negotiation process, with the EU and the respective government of a candidate country as primary actors. Yet, the setup of the pre-accession process suggests candidates' compliance behaviour to be interdependent. Precisely, we argued that if other countries show high levels of compliance with EU law, mechanisms of diffusion might be at work if strong spatial interlinkages between these countries do exist. Our empirical analysis

based on spatial maximum likelihood regression and m-STAR models demonstrates that candidates' levels of compliance are indeed driven by spatial dependencies, although free riding seems the more prevalent effect. This finding is robust across different network operationalizations for learning, competition, and competitive learning.

Future research could seek to disentangle the discussed mechanisms of diffusion – competition, learning and emulation, and competitive learning – empirically more thoroughly than we could have done here by directly exploring them through qualitative research, for instance. It might also be worthwhile to disaggregate the dependent variable by differentiating compliance along sectors. Eventually, there are reasons to expect diffusion through learning to be more likely in more technical areas such as the environment, where prior lessons and the corollary information regarding those lessons can presumably help improve later policy outcomes.

In light of this, we believe knowledge about the spatial interlinkages in EU politics to be of great interest to policymakers and scholars alike. Eventually, the EU has introduced the regatta approach to membership in the hope that a competitive race towards Brussels will spur reforms in the candidate countries. So far, such a diffusion effect of accession conditionality for the enlargement rounds in 2004 and 2007 had not yet been examined through systematic empirical research. Our study shows that the hope for a competitive race towards more compliance is somewhat unfounded: candidate states appear to influence each other, but states actually free ride on the compliance efforts of others. Therefore, while the regatta principle might be a 'carrot' for the remaining candidate countries (notably Macedonia, Montenegro, and Serbia), the 'wave approach' seems (still) predominant and better policies are in need to prevent free-riding dynamics (see also Franzese and Hays 2006). The EU might want to address these by fostering enforcement and monitoring, and by paying more attention to trans- and intergovernmental cooperation and exchange in policy-specific networks that bring together candidate countries with varying levels of compliance.

TABLE 1

DESCRIPTIVE STATISTICS

	N	Mean	SD	Min	Max
Degree of compliance (log)	101	0.44	0.22	-0.11	0.80
Lagged dependent variable	101	0.36	0.21	-0.11	0.71
$\mathbf{Wy}^{\text{Peer group}}$	101	0.40	0.24	0.00	0.78
$\mathbf{Wy}^{\text{IGOs}}$	101	0.43	0.17	0.00	0.70
$\mathbf{Wy}^{\text{Trade flows}}$	101	0.42	0.17	0.00	0.74
Political liberalisation	101	8.93	1.06	6.00	10.00
Economic liberalisation	101	60.60	6.90	45.70	77.70
IGO membership	101	60.50	16.86	0.00	82.00
Political constraints	101	0.46	0.08	0.27	0.67
GDP *per capita* (log)	101	8.49	0.62	7.10	9.67
Government expenditures (log)	101	22.25	1.30	19.91	25.26
Government position	101	14.37	3.60	6.17	19.80
Bureaucratic strength	101	0.38	0.48	-0.94	1.35

TABLE 2

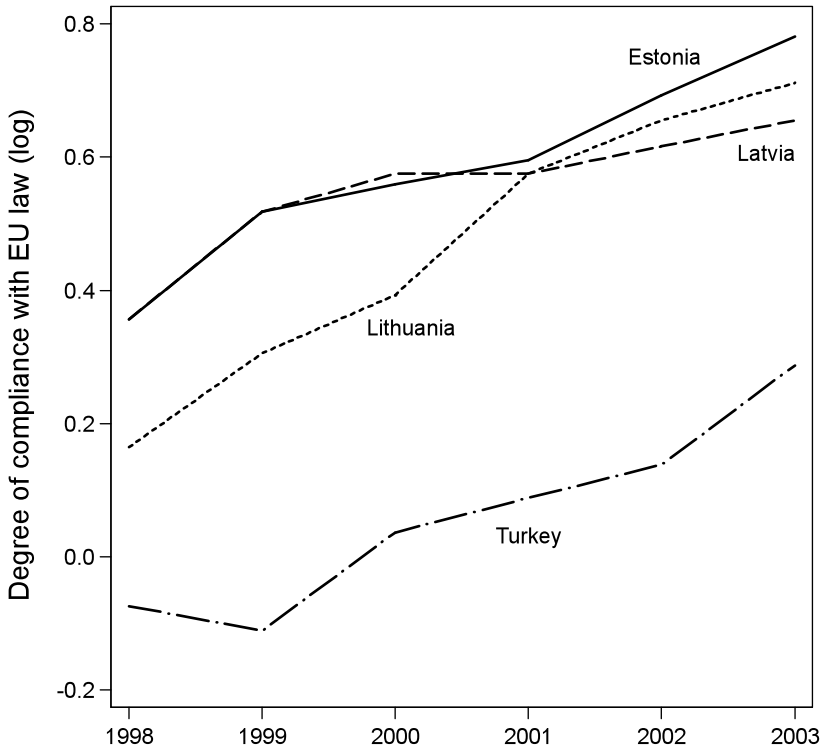
COMPLIANCE WITH THE EU *ACQUIS COMMUNAUTAIRE*

	Model 1	**Model 2**	**Model 3**	**Model 4**
	$\mathbf{Wy}^{\text{Peer group}}$	$\mathbf{Wy}^{\text{IGOs}}$	$\mathbf{Wy}^{\text{Trade flows}}$	m-STAR
Constant	-2.53	-1.41	-1.97	-1.50
	(1.17)**	(1.11)	(1.21)	(1.13)
Lagged dependent variable	0.53	0.50	0.56	0.49
	(0.08)***	(0.07)***	(0.08)***	(0.08)***
Political liberalization	0.00	-0.00	-0.00	-0.01
	(0.02)	(0.01)	(0.02)	(0.01)
Economic liberalization	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
IGO membership	0.02	0.01	0.01	0.02
	(0.00)***	(0.00)***	(0.00)***	(0.00)***
Political constraints	0.01	0.01	0.01	0.02
	(0.10)	(0.10)	(0.11)	(0.10)
GDP *per capita* (log)	-0.07	-0.17	-0.11	-0.11
	(0.09)	(0.09)*	(0.10)	(0.09)
Government expenditures (log)	0.06	0.07	0.07	0.05
	(0.06)	(0.05)	(0.06)	(0.06)
Government position	-0.00	-0.00	-0.00	-0.00
	(0.00)*	(0.00)	(0.00)	(0.00)
Bureaucratic strength	-0.05	-0.06	-0.07	-0.05
	(0.04)	(0.04)	(0.04)*	(0.04)
$\mathbf{Wy}^{\text{Peer group}}$	-0.23			-0.03
	(0.02)***			(0.02)*
$\mathbf{Wy}^{\text{IGOs}}$		-0.58		-0.00
		(0.00)***		(0.00)**
$\mathbf{Wy}^{\text{Trade flows}}$			-0.12	0.00
			(0.02)***	(0.00)**
N	101	101	101	101
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes

Note: Table entries are coefficients, standard errors in parentheses, * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed).

FIGURE 1

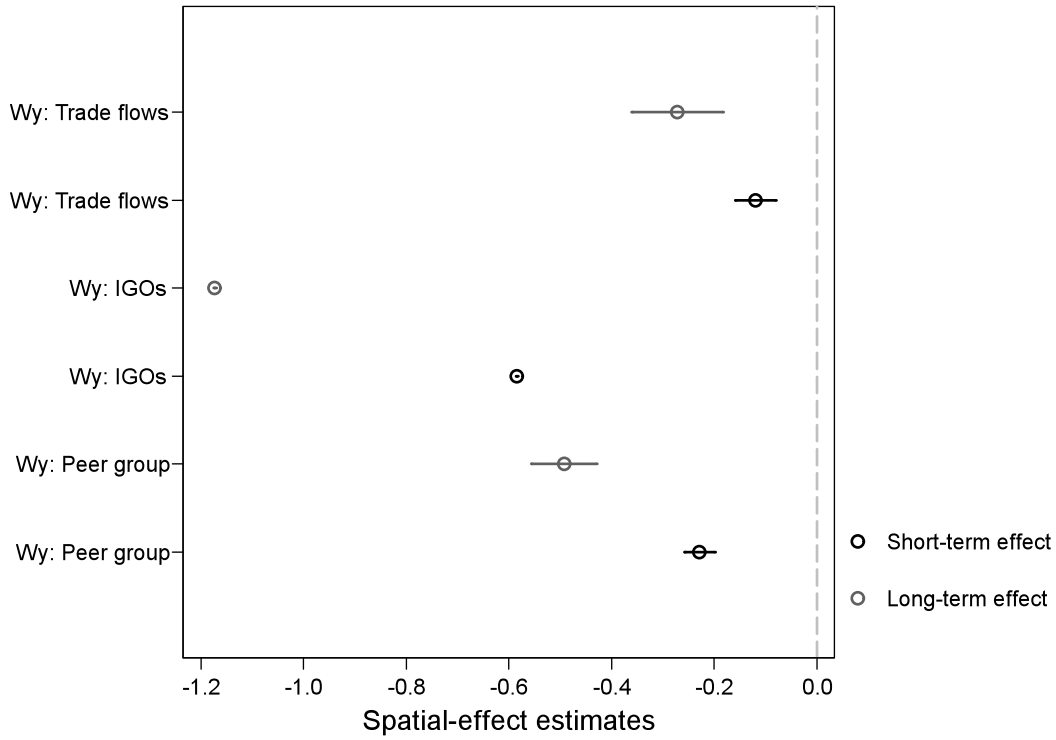
DEGREE OF COMPLIANCE WITH EU LAW – BALTIC STATES AND TURKEY



Note: Years under study represented by x-axis. A respective country's degree of compliance (log) is represented by the y-axis.

FIGURE 2

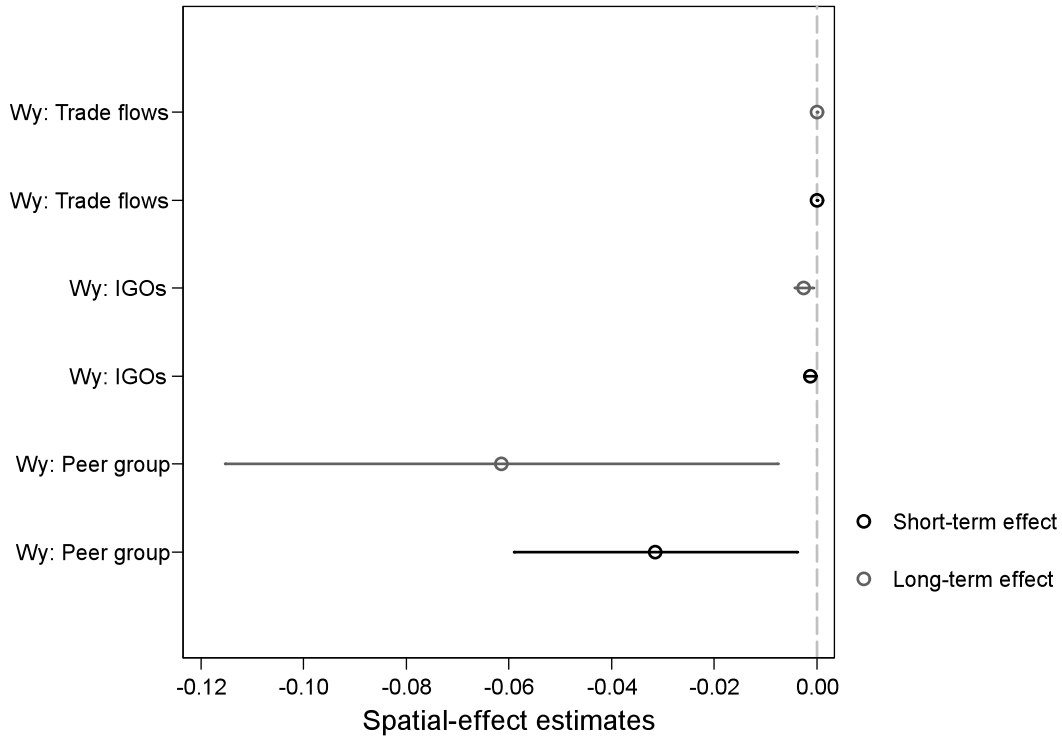
SPATIAL EFFECTS OF SPATIAL LAG VARIABLES (MODELS 1-3)



Note: Horizontal bars pertain to 90 percent confidence intervals, vertical dashed line marks spatial effect of 0.

FIGURE 3

SPATIAL EFFECTS OF SPATIAL LAG VARIABLES (MODEL 4)



Note: Horizontal bars pertain to 90 percent confidence intervals, vertical dashed line marks spatial effect of 0.

References

Agence France Presse (2006). 'Romania and Bulgaria Compete to Avoid Red Light on EU Accession', *Agence France Presse,* May 14, 2006.

Appel, Hilary, and Mitchell Orenstein (2013) 'Ideas versus Resources: Explaining the Flat Tax and Pension Privatization Revolutions in Eastern Europe and the Former Soviet Union', *Comparative Political Studies,* 46:2, 123-52.

Barbieri, Katherine, Omar Keshk, and Brian Pollins (2009). 'Trading Data: Evaluating our Assumptions and Coding Rules', *Conflict Management and Peace Science,* 26:5, 471-91.

Beck, Nathaniel (2001). 'Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years?', *Annual Review of Political Science*, 4:1, 271-93.

Beck, Nathaniel, Kristian Skrede Gleditsch, and Kyle Beardsley (2006). 'Space is More than Geography: Using Spatial Econometrics in the Study of Political Economy', *International Studies Quarterly,* 50:1, 27-44.

Benoit, Kenneth, and Michael Laver (2006). *Party Policy in Modern Democracies*. London: Routledge.

Bernauer, Thomas, Anna Kalbhenn, Vally Koubi, and Gabriele Spilker (2010). 'A Comparison of International and Domestic Sources of Global Governance Dynamics', *British Journal of Political Science*, 40:3, 509-38.

Böhmelt, Tobias, and Tina Freyburg (2013). 'The Temporal Dimension of the Credibility of EU Conditionality and Candidate States' Compliance with the *acquis communautaire*, 1998-2009', *European Union Politics*, 14:2, 250-72.

Böhmelt, Tobias, Vally Koubi, and Thomas Bernauer (2014). 'Civil Society Participation in Global Governance: Insights from Climate Politics', *European Journal of Political Research,* 53:1, 18-36.

Börzel, Tanja (2003). *Environmental Leaders and Laggards in the European Union. Why There is (Not) a Southern Problem*. London: Ashgate.

Börzel, Tanja, and Thomas Risse (2012). 'From Europeanisation to Diffusion: Introduction', *West European Politics,* 35:1, 1-19.

Börzel, Tanja, Tobias Hofmann, Diana Panke, and Carina Sprungk (2010). 'Obstinate and Inefficient: Why Member States Do Not Comply with European Law', *Comparative Political Studies,* 43:11, 1363-90.

Brusis, Martin (2005). 'The Instrumental Use of European Union Conditionality: Regionalisation in Czech Republic and Slovakia', *East European Politics and Societies,* 19:2, 291-316.

Buhaug, Halvard, and Kristian Skrede Gleditsch (2008). 'Contagion or Confusion? Why Conflicts Cluster in Space', *International Studies Quarterly,* 52:2, 215-33.

Busse, Reinhard (2002). 'Health Care Systems in EU Pre-Accession Countries and European Integration', *Arbeit & Sozialpolitik,* 56:5/6, 40-9.

Christoffersen, Poul (2007) 'The Preparation of the Fifth Enlargement', in George Vassiliou (ed.), *The Accession Story*. Oxford: Oxford University Press, 24-33.

Dimitrova, Antoaneta (2002). 'Enlargement, Institution-building and the EU's Administrative Capacity Requirement', *West European Politics,* 25:4, 171-90.

Dimitrova, Antoaneta (2010). 'The New Member States of the EU in the Aftermath of Enlargements: Do New European Rules Remain Empty Shells?', *Journal of European Public Policy,* 17:10, 137-48.

Dolowitz, David, and David Marsh (2000). 'Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-making', *Governance,* 13:1, 5-24.

Dorussen, Han, and Hugh Ward (2008). 'Intergovernmental Organizations and the Kantian Peace – A Network Perspective', *Journal of Conflict Resolution,* 52:2, 189-212.

Elhorst, Paul (2003). 'Specification and Estimation of Spatial Panel Data Models', *International Regional Science Review,* 26:3, 244-68.

European Commission (2006). *Communication from the Commission to the European Parliament and the Council: Enlargement Strategy and Main Challenges 2006-2007*. COM 2006:649, Brussels, November 8, 649.

Finnemore, Martha, and Kathryn Sikkink (1998). 'International Norm Dynamics and Political Change', *International Organization,* 52:4, 887-917.

Franzese, Robert, and Jude Hays (2006). 'Strategic Interaction among EU Governments in Active Labor Market Policy-making: Subsidiarity and Policy Coordination under the European Employment Strategy', *European Union Politics*, 7:2, 167-89.

Franzese, Robert, and Jude Hays (2007). 'Spatial Econometric Models of Cross-Sectional Interdependence in Political Science Panel and Time-Series-Cross-Section Data', *Political Analysis,* 15:2, 140-64.

Franzese, Robert, and Jude Hays (2008). 'Interdependence in Comparative Politics: Substance, Theory, Empirics, Substance', *Comparative Political Studies,* 41:4/5, 742-80.

Geoghegan, Ian (1998). 'EU Applicants Start Their Entrance Exams', *Reuters,* March 21, 1998.

Gilardi, Fabrizio (2010). 'Who Learns From What In Policy Diffusion Processes?' *American Journal of Political Science,* 54:3, 650-66.

Gilardi, Fabrizio (2012). 'Transnational Diffusion: Norms, Ideas, and Policies', in Walter Carlsnaes, Thomas Risse, and Beth Simmons (eds.), *Handbook of International Relations.* Thousand Oaks: SAGE Publications, 453-77.

Grabbe, Heather (2001). 'How Does Europeanization Affect CEE Governance? Conditionality, Diffusion, and Diversity', *Journal of European Public Policy,* 8:6, 1013-31.

Grabbe, Heather (2002). 'European Union Conditionality and the "*Acquis Communautaire*"', *International Political Science Review,* 23:3, 249-68.

Grabbe, Heather (2003). 'Europeanisation Goes East: Power and Uncertainty in the EU Accession Process', in Kevin Featherstone and Claudio Radaelli (eds.), *The Politics of Europeanization.* Oxford: Oxford University Press, 303-327.

Graham, Erin, Charles Volden, and Craig Shipan (2013) 'The Diffusion of Policy Diffusion Research', *British Journal of Political Science*, 43:3, 673-701.

Hays, Jude, Aya Kachi, and Robert Franzese (2010). 'A Spatial Model Incorporating Dynamic, Endogenous, Network Interdependence: A Political Science Application', *Statistical Methodology,* 7:3, 406-28.

Henisz, Witold (2002). 'The Institutional Environment for Infrastructure Investment', *Industrial and Corporate Change,* 11:2, 355-89.

Hille, Peter, and Christoph Knill (2006). 'It's the Bureaucracy, Stupid: The Implementation of the *Acquis Communautaire* in EU Candidate Countries, 1999-2003', *European Union Politics,* 7:4, 531-52.

Holzinger. Katharina, and Christoph Knill (2005). 'Causes and Conditions of Cross-National Convergence', *Journal of European Public Policy,* 12:5, 775-96.

Honaker, James, and Gary King (2010). 'What to Do about Missing Values in Time-Series Cross-Section Data', *American Journal of Political Science,* 54:2, 561-81.

Jacoby, Wade (2004). *The Expansion of the European Union and NATO: Ordering from the Menu in Central Europe*. Cambridge: Cambridge University Press.

Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi (2010). 'The Worldwide Governance Indicators: A Summary of Methodology, Data and Analytical Issues', *World Bank Policy Research Working Paper,* 5430, 1-31.

Keen, Michael, Yitae Kim, and Ricardo Varsano (2008). 'The "Flat Tax(es)": Principles and Evidence'*, International Tax Public Finance,* 15:6, 712-51.

Kelley, Judith (2004). *Ethnic Politics in Europe: The Power of Norms and Incentives*. Princeton, NJ: Princeton University Press.

Keynes John (1930). *A Treatise on Money.* London: Macmillan.

Kochenov, Dimitry (2004). 'Behind the Copenhagen Façade. The Meaning and Structure of the Copenhagen Political Criteria of Democracy and the Rule of Law', *European Integration Online Papers,* 8:10, 1-34.

König, Thomas and Thomas Bräuninger (2003). 'The Eastern Enlargement of the European Union – An Institutional Analysis of Policy Positions, Accession Scenarios and Institutional Reform', in Manfred J. Holler, Hartmut Kliemt, Dieter Schmidtchen, and Manfred E. Streit (eds) European Governance [Jahrbuch für Neue Politische Ökonomie, Bd. 22]. Tübingen: J.C.B. Mohr (Paul Siebeck).

Kubicek, Paul (ed.) (2003). *The European Union and Democratization.* London: Routledge.

Lavenex, Sandra (2011). 'Concentric Circles of Flexible "European" Integration: A Typology of EU External Governance Relations', *Comparative European Politics,* 9:4, 372-93.

Marshall, Monty, and Keith Jaggers (2002). *POLITY IV Project: Political Regime Characteristics and Transitions, 1800-2002*. *Dataset User's Manuel.* College Park, MD: University of Maryland.

Martinez-Vazquez, Jorge, and Robert McNab (2000). 'The Tax Reform Experiment in Transitional Countries', *National Tax Journal,* 53:2, 273-98.

Mattli, Walter, and Thomas Plümper (2002). 'The Demand-Side Politics of EU Enlargement: Democracy and the Application for EU Membership', *Journal of European Public Policy,* 9:4, 550-74.

Meseguer, Covadonga (2005). 'Policy Learning, Policy Diffusion, and the Making of a New Order', *The ANNALS of the American Academy of Political and Social Science,* 598:1, 76-82.

Mitchell, Daniel (2005). 'Will Europe's Flat Tax Revolution Spread from East to West?', *European Affairs,* 6:4, available online at: http://www.europeaninstitute.org/20050902183/Fall-2005/will-europes-flat-tax-revolution-spread-from-east-to-west.html.

Most, Benjamin, and Harvey Starr (1990). 'Theoretical and Logical Issues in the Study of International Diffusion', *Journal of Theoretical Politics,* 2:4, 391-412.

Neumayer, Eric, Thomas Plümper, and Mariaelisa Epifanio (2014). 'The "Peer Effect" in Counterterrorist Policies', *International Organization,* 68:1, 211-34.

Noutcheva, Gergana, and Dimitar Bechev (2008). 'The Successful Laggards: Bulgaria and Romania's Accession to the EU', *East European Politics & Societies,* 22:1, 114-44.

Pevehouse, Jon, Timothy Nordstrom, and Kevin Warnke (2004). 'The Correlates of War 2 International Governmental Organizations Data Version 2.0', *Conflict Management and Peace Science,* 21:2, 101-19.

Pikano, Jaanus (2000). 'Third Response–EU Candidate Country', *Congress Report European Health Forum Gastein (EHFG)*, Austria.

Plümper, Thomas, and Eric Neumayer (2010). 'Model Specification in the Analysis of Spatial Dependence', *European Journal of Political Research,* 49:3, 418-42.

Plümper, Thomas, and Vera Troeger (2007). 'Efficient Estimation of Time-Invariant and Rarely Changing Variables in Finite Sample Panel Analyses with Unit Fixed Effects', *Political Analysis,* 15:2, 124-39.

Plümper, Thomas, Vera Troeger, and Philip Manow (2005). 'Panel Data Analysis in Comparative Politics', *European Journal of Political Research,* 44:2, 327-354.

Pridham, Geoffrey (2005). *Designing Democracy: EU Enlargement and Regime Change in Post-Communist Europe.* Basingstoke: Palgrave Macmillan.

Schimmelfennig, Frank (2007). 'European Regional Organizations, Political Conditionality, and Democratic Transformation in Eastern Europe', *East European Politics and Societies,* 21:1, 126-41.

Schimmelfennig, Frank (2008). 'EU Political Accession Conditionality after the 2004 Enlargement: Consistency and Effectiveness', *Journal of European Public Policy,* 15:6, 918-37.

Schimmelfennig, Frank, and Ulrich Sedelmeier (2004). 'Governance by Conditionality? EU Rule Transfer to the Candidate Countries of Central and Eastern Europe', *Journal of European Public Policy,* 11:4, 661-79.

Schimmelfennig, Frank, and Ulrich Sedelmeier (2005). 'Introduction: Conceptualizing the Europeanization of Central and Eastern Europe', in Frank Schimmelfennig and Ulrich Sedelmeier (eds.), *The Europeanization of Central and Eastern Europe*. Ithaca and London: Cornell University Press, 1-28.

Schimmelfennig, Frank, and Hanno Scholtz (2008). 'EU Democracy Promotion in the European Neighbourhood: Political Conditionality, Economic Development and Transnational Change', *European Union Politics,* 9:2, 187-215.

Schimmelfennig, Frank, and Florian Trauner (2009). 'Introduction: Post-Accession Compliance in the EU's New Member States', *European Integration Online Papers,* 13:2, 1-8.

Schimmelfennig, Frank, Stefan Engert, and Heiko Knobel (2006). *International Socialization in Europe: European Organizations, Political Conditionality, and Democratic Change.* Basingstoke: Palgrave Macmillan.

Schimmelfennig, Frank, Stefan Engert, and Heiko Knobel (2003). 'Costs, Commitment and Compliance: The Impact of EU Democratic Conditionality on Latvia, Slovakia and Turkey', *Journal of Common Market Studies*, 41:3, 495-518.

Sedelmeier, Ulrich (2012). 'Is Europeanization through Conditionality Sustainable? Lock-In of Institutional Change after EU Accession', *West European Politics,* 35:1, 20-38.

Simmons, Beth, Frank Dobbin, and Geoffrey Garrett (2006). 'Introduction: The International Diffusion of Liberalism', *International Organization,* 60:4, 781-810.

Simmons, Beth, and Zachary Elkins (2004). 'The Globalization of Liberalization: Policy Diffusion in the International Political Economy', *American Political Science Review*, 98:1, 171-89.

Steunenberg, Bernard, and Antoaneta Dimitrova (2007). 'Compliance in EU Enlargement Process: The Limits of Conditionality', *European Integration Online Papers*, 11:5, 1-18.

Tallberg, Jonas (2002). 'Paths to Compliance: Enforcement, Management, and the European Union', *International Organization,* 56:3, 609-43.

Tallberg, Jonas (2004). 'The Power of the Presidency: Brokerage, Efficiency and Distribution in EU Negotiations', *Journal of Common Market Studies,* 42:5, 999-1022.

Toshkov, Dimiter (2008). 'Embracing European Law. Compliance with EU Directives in Central and Eastern Europe', *European Union Politics,* 9:3, 379-402.

Vachudova, Milada (2005). *Europe Undivided: Democracy, Leverage, and Integration Since 1989.* Oxford: Oxford University Press.

Vassiliou, George (2007). *The Accession Story*. Oxford: Oxford University Press.

Veen, Tim, and Jan-Hinrik Meyer-Sahling (2012). *Compliance with Accession Criteria: Analysing the EU Commission's Enlargement Reports using Computer-Assisted Content Analysis*. University of Mannheim and University of Nottingham: Typescript.

Ward, Hugh, and Xun Cao (2012). 'Domestic and International Influences on Green Taxation', *Comparative Political Studies,* 45:9, 1075-103.

Ward, Hugh, and Peter John (2013) 'Competitive Learning in Yardstick Competition: Testing Models of Policy Diffusion With Performance Data', *Political Science Research and Methods*, 1:1, 3-25.

Zubek, Radoslav (2008). *Core Executive and Europeanization in Central Europe*. Basingstoke: Palgrave.

1. Some experts on Eastern Europe discuss potential competition effects between candidates, in particular Bulgaria and Romania, but have not studied these systematically (e.g. Noutcheva and Bechev 2008).
2. While, in principle, compliance can occur without much action from the states in question, the model refers to compliance when governments have to make real efforts to adapt (Börzel 2003: 59).

3. While it is important to disentangle these three causal mechanisms of diffusion analytically, note that it is generally difficult to distinguish between them in quantitative studies (see Ward and Cao 2012: 1096).
4. Notably, the existence of a functioning market economy as well as the capacity to cope with competitive pressures and market forces within the EU.
5. Note that the negotiations with Turkey have been suspended in December 2006, with the EU freezing talks in eight of the 35 key areas under negotiation. Therefore, we also estimated all models with a sample that excludes Turkey. Our core results, however, remain unaffected by this change.
6. In other words, the sample selection is driven by data availability. A related issue pertains to states endogenously expanding and contracting in the networks we use for the construction of the spatial lags (described below). While it is currently difficult to address this thoroughly, the m-STAR model (Hays, Franzese, and Kachi 2010) we present below seems to tackle this issue at least partly.
7. These reports are available at http://ec.europa.eu/enlargement/countries/strategy-and-progress-report/index_en.htm (last access: February 6, 2014).
8. The reports might not necessarily monitor progress in an objective way, but rather reflect the Commission's priorities and strategies in encouraging reforms. However, a comparison of the Commission's own evaluation of candidates' compliance with the political accession criteria and the annual ratings of political rights and civil liberties by Freedom House does not indicate any systematic bias (Schimmelfennig 2008: 922). For a detailed discussion of the Commission's progress reports, see, also, Hille and Knill (2006: 532) and Veen and Meyer-Sahling (2012). For a more detailed discussion of the data quality, see Böhmelt and Freyburg (2013).
9. Apart from Benoit and Laver (2006), which we use for our item, other data are hardly available. Note that Benoit and Laver (2006) focus on parties' preference positions in elections between 2000 and 2004 only. Thus, while we have to omit country-years in which parties that did not exist before 2005 were part of the government, the basic assumption behind our 92 estimated values of that variable is that parties' positions toward EU membership did not change over time.
10. This terminology is also in line with the existent literature, e.g. Franzese and Hays (2006; 2007; 2008), Hays et al. (2010), Ward and Cao (2012), Plümper and Neumayer (2010), or Ward and John (2013).